JAMECO®
ELECTRONICS

INTEGRATED CIRCUITS

99% IN-STOCK

PASSIVE COMPONENTS

LOW-PRICE GUARANTEE

TOOLS & TEST EQUIPMENT

24/7 SERVICE

HARD-TO-FIND ITEMS

PC COMPONENTS

Value Beyond The Expectation Point

Volume 223
August-October 2002



1-800-831-4242
www.Jameco.com

Jameco is Your CD-ROM Headquarters

All the necessary products you need to copy your important information and store it too! Look at these great values from Jameco.

Drives

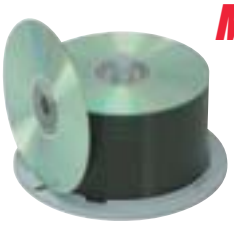


199751

16x12x40 Internal CD-RW Drive

Disks do not have enough space anymore for today's large files. With this Internal CD-RW you can save your files with capacities of up to 760MB on a single CD.

Media





198774

50-Pack 24X CD-R

80-minute 24X CD-R disk. Offering 700MB of storage and packed in a 50-pack spindle.

Storage

NEW

208493





208514

208485





208506

Part No.	Description	1	10
199751	CD-RW drive	$109.99	$104.99
198774	50-pack 12X CD-R	14.99	13.49

Part No.	Description	1	10	50
208514	Paper envelope (25)	$2.49	$2.19	$1.99
208506	Clamshell (10)	3.99	3.59	3.19
208485	Ultra slimline black (10)	3.99	3.59	3.19
208493	Ultra slimline assort. (10)	4.95	4.45	3.95

Drives and accessories on pages 153 & 154

No More Tangled and Broken Cables on the Road!

NEW



208362



208371

Retractable Modem & CAT 5 Cables

Tired of untangling your phone or CAT 5 cable? Now they're on retractable reels, so you can avoid the spaghetti!

208362 Includes: Female-female extension module

208371 Includes: RJ45 "T"& RJ11 stepdown adapters



Ever had this problem?

We have the solution!



Part No.	Description	Cord Length	1	10
208362	RJ11 retractable cable (modem)	9'6"	$9.95	$8.95
208371	RJ45 retractable cable (CAT 5 & modem)	23'	19.95	17.95

See page 130 for complete specifications

Mini USB Hub for Mobile Users

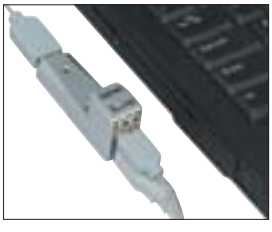
Laptop 3-Port USB Thumbhub

Ideal for mobile users needing access to multiple USB devices. Stacked design minimizes footprint and maximizes cable organization.

- USB Revision 1.1 compliant
- Downstream port with current protection
- Self-powered mode
- LEDs indicate status
- Comes with extension cable



NEW



Part No.	Description	1	10
208451	3-Port thumbhub	$18.95	$16.95

The Safest Place for Important Data

NEW



208522





USB Thumbdrives 16MB to 512MB

Keep your data in your pocket or purse! Thumbdrives plug right into your USB port and offer faster access to more storage than a floppy, plus they're easier to use than a CD. Simply copy files then unplug the device, take your data and go!

- Includes extension cable and neck strap

Part No.	Description	1	10
208522	16MB thumbdrive	$34.95	$33.20
208549	64MB thumbdrive	69.95	66.45
208557	128MB thumbdrive	99.95	94.95
208565	512MB thumbdrive	399.95	379.95

See pages 142-143 for our complete selection of USB products

Power Strip Saver

Get full use of your power strips and UPS outlets with our power strip saver. Plug those bulky adapters into these cables and plug the cables into the power strip. Do you have an extra adapter to be plugged into the power strip? Use the "Y" power strip saver to add an extra outlet.

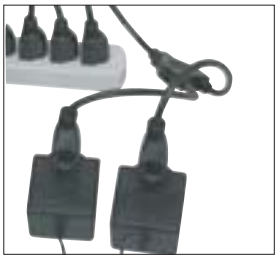


Before



After
Every Outlet is Usable

Need An Extra Outlet
Use the "Y"



Part No.	Description	1	10	100
199777	AC Power cord (black)	$1.69	$1.55	$1.35
208338	AC Power cord (beige)	1.69	1.55	1.35
208346	Power strip saver "Y"	2.89	2.75	2.59

Surge suppressors on pages 151 & 152

Take Advantage of Today's Ultra-Fast Hard Drives

PCI ATA/133 Controller Card

Your system may not be able to take advantage of today's faster hard-drive upgrades. Use this card to enable today's faster drives for maximum performance or to add additional drives. Ideal for multimedia and database applications.

NEW



Part No.	Description	1	5
208021	Ultra ATA/133 controller	$169.99	$159.99

Jameco's complete line of controller cards on pages 134 & 135

The Essential Addition for Today's Digital Images and Video



Combo IEEE 1394 & USB 2.0 PCI Card

Create your own videos with this combo PCI card that's 40-times faster than the original USB.

- Fully IEEE 1394 (Firewire) OHCI compliance
- 133Mbps PCI bus master DMA transfer rate
- 400Mbps transfer rate on IEEE 1394 and 480Mbps transfer rate on USB 2.0
- Two external and 1 internal IEEE 1394 connector
- Three external and 1 internal USB connector

Complete specs on page 142

Part No.	Description	1	10
208477	PCI Firewire & USB	$99.95	$94.95

See detailed Product Index on pages 183-185

Integrated Circuits 6-16
Electronic Components.....17-28
Optoelectronic Components.....29-35
Fans & Heat Sinks 36-39
Motors & Motion Control 40-43
Power Components.....44-62
Miscellaneous Components 63-67
Electromechanical Components 68-79
Interconnect & Hardware.....80-88
Electronic Design.....89-98
Audio 99-101
Soldering Equipment 102-106
Test Equipment 107-117
Tools 118-124
Networking 125-132
Computer 133-164
Books.....165-167
Educational Kits 168-180
Order Form, Order Info & Detailed Product Index 181-185

PRICES

Prices are effective 7-22-02 and expire 10-20-02.
Prices and discounts are subject to change without notice.

LED Displays in All Sizes



See Jameco's LEDs in Action!
Special thanks to Jim Koepnick for sending us these photos.



Yes, one LED size doesn't fit the needs of all applications. When ½" isn't enough, consider our larger displays up to 5" high. Now a whole group of people can read your display at the same time. Ideal for control rooms, events, tradeshows and much more.

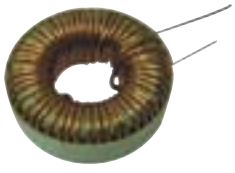
Part No.	Description	1	10	100	1000
202518	7-segment 3" display	$7.39	$6.99	$6.65	$6.29
202526	7-segment 5" display	29.95	26.95	24.25	21.85

Take a look at pages 30-33 for Jameco's selection of LEDs and Displays

New Inductor Product Lines

Jameco now features dozens of new devices to address your power, EFI and RFI needs, all at low prices.

High-Current Toroid Inductors



These low-cost toroidal inductors are designed for high-current, low-voltage applications, particularly the latest generation of low voltage processors.

Varnished RF Chokes

These industry-standard axial leaded chokes have a time tested design used in general purpose applications. Color dots provide identification of inductance.



Epoxy Conformal Coated RF Chokes

Standard EIA color coded bands provide easy identification of the inductance in microhenries. Epoxy coated to protect windings from harsh environments.



Complete product listings on page 23

Over 99% of Our Products are in Stock!

Don't worry about backorders, we'll send it today

New Passive Products

NTC Thermistors



Thermistors are the most sensitive temperature sensors available. Composed of metal oxide ceramics, they are low in cost. With their positive temperature coefficient of resistance, they are ideal for temperature control/compensation, liquid level/flow detection, surge protection, and time-delay circuits.

LA & ZA Series Varistors



Varistors are used to protect devices or components subject to electrical interference, whether from switching of resistive or capactive circuits, or from random high-voltage surges. The protective function results from the non-linear I=f (V) characteristics of varistors.

Complete selection on page 23

Buzzers



Jameco has expanded our buzzer line! Our piezo and magnetic buzzers are perfect for your high-volume needs. They are ideal for alarms, measuring instruments, medical equipment, toys, game machines, telephones, HDMF appliances, etc. Our buzzers offer outstanding reliability, wide environmental operating parameters and excellent electrical characteristics.

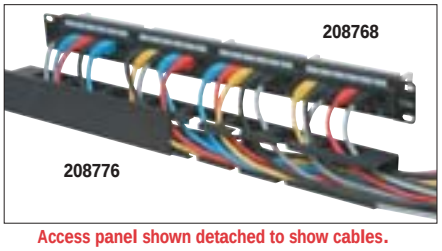
Our complete line on page 101

Latest Additions to Jameco's Expanding Network Product Solutions

New rack mount patch panels and cable router. Excellent design at bargain prices.

Patch Panels

Our new 12 and 24-port patch panels feature 110D punch blocks, UL and CUL listed, CAT 5 certification, T568A/B installation configurable, and color-coded blocks for T568 coding.



Access panel shown detached to show cables. Cables not included.

Part No.	Description	1	10
208768	12-port	$45.95	$39.95
208784	24-port	65.95	59.95
208776	Cable router	27.49	24.75

Cable Router

Keep your cables neat and organized. Simply slip your cables between the slots and snap cover in place for that ultra neat appearance.

NEW



Network Connector Kit – 226 Pieces

Now have every connector you will need to repair a network at your fingertips. Grab your kit, the tools and go!

NEW

This kit includes:

Quantity	Connector Type
50 pieces (ea.)	RJ11 solid flat cable (6P4C) RJ11 solid flat cable (4P4C)
25 pieces (ea.)	RJ11 solid round cable (6P4C) RJ45 solid round cable (8P8C) RJ45 solid flat cable (8P8C)
20 pieces	RJ45 protection caps (assorted colors)
5 (each)	BNC for RG58/U cable BNC for RG59/62/U cable BNC for RG174 cable BNC 50Ω terminator BNC Female-to-female adapter BNC T-adapter male-female-female
1 piece	Storage kit

Part No.	Description	1	10
207079	Connector kit	$69.95	$62.95

Need A Network Fast

Network Starter Kit

NEW

Everything you need to easily set up a network at a great price. No need to worry about compatibility or missing parts. Expandable to five users with our compatibility-tested network cards and cables.



208469

Kit Includes:
Two PCI network cards, two 15 foot straight-through cables, 5-port mini hub, 7.5VDC @ 1A wall transformer, 3.5" diskette drivers, and manual

Part No.	Description	1	10
208469	Network starter kit	$64.95	$58.50

Expansion Accessories

Part No.	Description	1	10
201671	15' cable RJ45	$6.49	$5.85
173606	PCI ethernet card	14.95	11.25

All this and more networking products on pages 129-131

Learn About Speech Recognition and Control a Wide Variety of Devices

Easy-to-build programmable recognition kit allows you to program the words you want the circuit to recognize. The heart of this speech recognition kit is the HM2007 IC. You can program 40 words @ 0.96 second word length or 20 words @ 1.92 seconds word length. Applications for this kit are: speech-controlled appliances, speech-assisted computer games, telephone-assistance systems, voice-recognition security, and speech-to-speech translation. With the addition of the speech interface kit you can have voice control over the OWI robotic arm located on page 171.

208611



NEW

208629



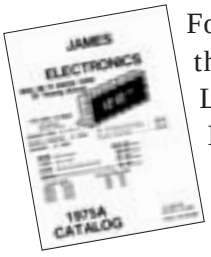
Images SI Inc.

Part No.	Description	Pieces	1	10
208611	Speech recognition kit	42	$119.95	$107.95
208629	Speech interface kit	41	89.95	79.95

Other kits and educational products located on pages 169-180

Jameco Adapts to Your Needs

The 70's...



Our 1st catalog was 8 pages.

Founded in 1974 Jameco started with the purchase of a barrel of IC's and LED's made by Fairchild and National Semiconductor. Purchasing in OEM quantities enabled our founder to pass the savings onto our customers. From the start, we've pleased our customers with our 99% in-stock pledge, practically eliminating backorders.

In the 80's...

We found ourselves at the center of the "Computer Revolution", and expanded our offering to include the products necessary to build or fix the latest computer equipment.



By 1989 the catalog expanded to 80 standard color pages.



In the 90's...

We saw the introduction of same-day shipping, and our popular website.

By '99 the catalog grew to 146 pages.



So far this millennium...

We're expanding our products and services significantly to anticipate your needs and stay ahead of the competition. Our core goals are to bring you what you want, at the best value, with immediate delivery. Let us know how we're doing. E-mail us at Feedback@Jameco.com



Just in Time Stocking Only at Jameco

Take advantage of our "Just in Time" fast delivery. Only Jameco has stocking levels that guarantee 99% in-stock availability! Call any weekday before 6:00 PM EST, and you can be assured you'll have it the next morning.

Open an Account Today!

It is easy to open an account at Jameco. Give us a call, and we'll take your information right over the phone, or we'll fax you a credit application right away. Most applications are approved within minutes.

Don't get Frustrated... Find it at Jameco!

Come to Jameco for popular electronic components, computer products and test equipment at unbeatable prices... You can also find those elusive and frustratingly hard-to-find items, and even some out-of-production parts, too! Join the multitudes of happy Jameco customers... You'll be glad you did.

Our Low Price Guarantee Doesn't Get Much Use...

… And we like it that way. We take our Low Price Guarantee seriously, so we search around the world to identify the sources for the lowest prices for our high-quality products. In fact, we have a team of people dedicated to keeping up to date with our competition and their prices.

Jameco's Low-Price Guarantee

We'll match the advertised price of any like product. It's that simple!



Damian Geiss

Dear Jameco,

I would like to thank you for your outstanding customer service and your website. I searched everywhere for an electronics company with an easy website for ordering – Jameco won!

Many companies on the internet profess to be good, but YOU are excellent. Thank you for taking the time to be excellent. You will be my PRIME electronics company now. Your selection and prices are incredible!

In this time when uncertainty plagues our nation, a company like yours reminds us of what made this nation as great as it is today. You represent all that is wonderful about the free market in the United States of America.

Keep it up, my friends. Keep up the good work. All of you play a part. Right down to the shippers. Great job!

Peace and Goodwill,
D. Geiss

The Jameco Advantage...



Low-Price Commitment

We'll match the advertised price of any like product. It's that simple.

Around-the-Clock Ordering

You can call us at 1-800-831-4242 24x7x365 to place your order. Or visit us on the web at http://www.Jameco.com.

Same Day Shipping

99% of orders placed by 6 PM EST are shipped the same day.

The Color Code Legend...

For easy reference we have included this color code legend on every page.



Four Different Types of Opportunities

Part numbers in **red** identify 390 new items added to this catalog.

Part No.	Product No.
NEW 182991	RMH08LP

A **green** part number identifies refurbished/out-of-production products that Jameco delivers to you at terrific prices.

Part No.	Product No.
25101	MC146818

A **blue** part number indicates products that are being phased out due to lack of supply. You probably have one last chance to buy at a reduced price.

Part No.	Product No.
155643	DC603F1

Our sale products are highlighted in **yellow** which usually signifies 10% to 60% off!

Part No.	Product No.	Pins	Description	1	10
44222	7400	14	Quad 2-input NAND gate	$.49	$.39
63538	7402	14	Quad 2-input NOR gate	.19	.14
44231	7404	14	Hex inverter (CD4069)	.39	.35

Contact Information

Order Desk – 24/7, 365 Days a Year

Phone: 1-800-831-4242
Fax: 1-800-237-6948
sales@Jameco.com

Website

www.Jameco.com

International Order Desk

Phone: 650-592-8097
Fax: 650-592-2503
international@Jameco.com

Technical Support

Phone: 1-800-831-4242
tech@Jameco.com

Customer Service

Phone: 1-800-831-4242
custservice@Jameco.com

Credit Department

Phone: 650-592-8097
credit@Jameco.com

International Toll-Free Fax Numbers

- **Columbia:** 980-9-136748
- **Mexico:** 001-800-593-1449
- **Indonesia:** 1-803-015-237-6948
- **Brazil:** 000-817-455-6119
- **New Zealand:** 080-044-0470



As Your Needs Change, So Does Jameco!

We're constantly updating our selection to make it the most appropriate for your needs. In this catalog you'll find new LEDs, Books, Kits, Components, Computer Products and a significantly expanded selection of Fans, Transformers and Power Supplies.

Jameco Electronics is a trademark of James Electronics, LTD, its parent company. Other product names and logos are used for identification purposes only and are trademarks of their respective companies. ©2002 Jameco Electronics. All rights reserved.

Part Number Color Code: New Sale Refurbished Closeout

Call for pricing on quantities over 100 – we carry major manufacturers. **We will special order any IC – 100 Piece Minimum**

EPROM

Dual-In-Line

Part No.	Cross Ref.	Pins	Description	1	10	100
39909	2708	24	1k x 8 8kB 450ns (±5V, +12V)	$4.95	$4.49	$4.05
33591	TMS2532A	24	4k x 8 32kB 450ns (21V)	3.95	2.95	2.19
33611	TMS2716	24	2k x 8 16kB 450ns (±5V, +12V)	2.25	1.99	1.79
40002	2716	24	2k x 8 16kB 450ns (25V)	3.99	3.59	3.19
40011	2716-1	24	2k x 8 16kB 350ns (25V)	6.49	5.89	5.39
39706	27C16	24	2k x 8 16kB 450ns (25V) CMOS	7.25	6.55	5.99
114876	2732B	24	4k x 8 32kB 450ns (12.5V)	4.15	3.75	3.39
40096	2732	24	4k x 8 32kB 450ns (25V)	6.49	5.99	5.49
40109	2732A-20	24	4k x 8 32kB 200ns (21V)	6.49	5.99	5.49
40125	2732A-25	24	4k x 8 32kB 250ns (21V)	4.99	4.49	3.99
40133	2732A-45	24	4k x 8 32kB 450ns (21V)	4.49	3.99	3.59
39765	27C32	24	4k x 8 32kB 450ns (25V) CMOS	5.49	4.99	4.49
40192	2764-20	28	8k x 8 64kB 200ns (21V)	5.25	4.75	4.29
40205	2764-25	28	8k x 8 64kB 250ns (21V)	5.25	4.75	4.25
40230	2764A-20	28	8k x 8 64kB 200ns (12.5V)	4.49	3.99	3.59
40248	2764A-25	28	8k x 8 64kB 250ns (12.5V)	3.49	3.25	2.85
105304	27C64-12	28	8k x 8 64kB 120ns (12.5V) CMOS	6.49	5.99	5.49
39829	27C64-15	28	8k x 8 64kB 150ns (12.5V) CMOS	5.49	4.99	4.49
74608	27C64-20	28	8k x 8 64kB 200ns (12.5V) CMOS	4.69	4.29	3.79
39845	27C64-25	28	8k x 8 64kB 250ns (12.5V) CMOS	4.49	4.09	3.79
39933	27128-25	28	16k x 8 128kB 250ns (21V)	5.95	5.35	4.79
39950	27128A-15	28	16k x 8 128kB 150ns (12.5V)	4.49	3.95	3.55
39968	27128A-20	28	16k x 8 128kB 200ns (12.5V)	4.69	4.19	3.79
39984	27128A-25	28	16k x 8 128kB 250ns (12.5V)	4.49	3.99	3.59
87935	27C128-12	28	16k x 8 128kB 120ns (12.5V) CMOS	4.49	3.99	3.59
39677	27C128-15	28	16k x 8 128kB 150ns (12.5V) CMOS	4.29	3.85	3.45
101101	27C128-20	28	16k x 8 128kB 200ns (12.5V) CMOS	3.99	3.69	3.29
39685	27C128-25	28	16k x 8 128kB 250ns (12.5V) CMOS	3.99	3.59	3.25
40037	27256-15	28	32k x 8 256kB 150ns (12.5V)	5.49	4.95	4.45
40045	27256-20	28	32k x 8 256kB 200ns (12.5V)	3.75	3.35	3.05
40061	27256-25	28	32k x 8 256kB 250ns (12.5V)	3.49	2.95	2.75
140476	27C256-70	28	32k x 8 256kB 70ns (12.5V) CMOS	5.95	5.39	4.85
112740	27C256-10	28	32k x 8 256kB 100ns (12.5V) CMOS	5.75	5.25	4.49
65904	27C256-12	28	32k x 8 256kB 120ns (12.5V) CMOS	5.25	4.75	4.29
39714	27C256-15	28	32k x 8 256kB 150ns (12.5V) CMOS	4.95	4.49	4.05
39722	27C256-20	28	32k x 8 256kB 200ns (12.5V) CMOS	4.89	4.40	3.95
39731	27C256-25	28	32k x 8 256kB 250ns (12.5V) CMOS	4.25	3.75	3.39
40150	27512-20	28	64k x 8 512kB 200ns (12.5V)	3.99	3.59	3.19
40168	27512-25	28	64k x 8 512kB 250ns (12.5V)	3.79	3.39	2.99
203617	27C512-45	28	64k x 8 512kB 45ns (12.5V) CMOS	3.95	3.75	3.50
203625	27C512-70	28	64k x 8 512kB 70ns (12.5V) CMOS	3.85	3.50	3.25
175206	27C512-90	28	64k x 8 512kB 90ns (12.5V) CMOS	7.95	6.95	6.25
203730	27C512-10 PLCC	32	64k x 8 512kB 100ns (12.5V) CMOS	2.25	2.10	1.89
131959	27C512-10	28	64k x 8 512kB 100ns (12.5V) CMOS	5.95	5.49	4.99
39773	27C512-12	28	64k x 8 512kB 120ns (12.5V) CMOS	5.75	5.25	4.75
203692	27C512-12 OTP	28	64k x 8 512kB 120ns (12.5V) CMOS	2.25	1.79	1.79
39781	27C512-15	28	64k x 8 512kB 150ns (12.5V) CMOS	5.49	5.09	4.59
39790	27C512-20	28	64k x 8 512kB 200ns (12.5V) CMOS	4.95	4.49	4.05
39802	27C512-25	28	64k x 8 512kB 250ns (12.5V) CMOS	5.25	3.95	2.75
203633	27C1024-80	40	64k x 16 1024kB 80ns (12.5V) CMOS	6.65	6.15	5.65
203641	27C1024-12	40	64k x 16 1024kB 120ns (12.5V) CMOS	5.95	5.55	5.15
118148	27C1024-15	40	64k x 16 1024kB 150ns (12.5V) CMOS	4.75	4.39	3.95
137701	27C010-45	32	128k x 8 1024kB 45ns (12.5V) CMOS	7.79	6.99	6.29
146149	27C010-70	32	128k x 8 1024kB 70ns (12.5V) CMOS	6.95	6.25	5.65
137699	27C010-80	32	128k x 8 1024kB 80ns (12.5V) CMOS	5.75	5.25	4.75
203705	27C010-10 OTP	32	128k x 8 1024kB 100ns (12.5V) CMOS	2.55	2.35	2.15
203748	27C010-10 PLCC	32	128k x 8 1024kB 100ns (12.5V) CMOS	2.55	2.35	2.15
79231	27C010-10	32	128k x 8 1024kB 100ns (12.5V) CMOS	5.25	4.75	4.25
74624	27C010-12	32	128k x 8 1024kB 120ns (12.5V) CMOS	5.25	4.75	3.95
39651	27C010-15	32	128k x 8 1024kB 150ns (12.5V) CMOS	4.95	4.49	4.05
39669	27C010-20	32	128k x 8 1024kB 200ns (12.5V) CMOS	4.75	4.39	3.95
203650	27C020-80	32	256k x 8 2048kB 80ns (12.5V) CMOS	7.25	6.50	5.89
203713	27C020-10 OTP	32	256k x 8 2048kB 100ns (12.5V) CMOS	4.15	3.80	3.45
203756	27C020-10 PLCC	32	256k x 8 2048kB 100ns (12.5V) CMOS	3.99	3.75	3.49
156267	27C020-10	32	256k x 8 2048kB 100ns (12.5V) CMOS	7.99	7.29	6.59
78852	27C020-12	32	256k x 8 2048kB 120ns (12.5V) CMOS	7.29	6.69	5.99
65699	27C020-15	32	256k x 8 2048kB 150ns (12.5V) CMOS	6.25	5.75	5.19

EPROM (Continued)

Dual-In-Line

Part No.	Cross Ref.	Pins	Description	1	10	100
65681	27C020-20	32	256k x 8 2048kB 200ns (12.5V) CMOS	$5.95	$5.39	$4.85
127933	27C4096-12	40	256k x 16 4096kB 120ns (12.5V) CMOS	6.95	5.19	4.30
203676	27C040-80	32	512k x 8 4096kB 80ns (12.5V) CMOS	11.20	10.39	9.55
203764	27C040-10 PLCC	32	512k x 8 4096kB 100ns (12.5V) CMOS	5.99	5.59	5.20
111780	27C040-10	32	512k x 8 4096kB 100ns (12.5V) CMOS	6.95	6.25	5.65
203721	27C040-12 OTP	32	512k x 8 4096kB 120ns (12.5V) CMOS	6.75	6.40	5.85
102293	27C040-12	32	512k x 8 4096kB 120ns (12.5V) CMOS	8.49	7.49	6.75
85462	27C040-15	32	512k x 8 4096kB 150ns (12.5V) CMOS	7.95	6.95	5.95
203668	27C040-45	32	512k x 8 4096kB 45ns (12.5V) CMOS	12.95	12.25	11.55
203684	27C080-90	32	1M x 8 8192kB 90ns (12.5V) CMOS	11.29	10.15	9.15
156275	27C080-10	32	1M x 8 8192kB 100ns (12.5V) CMOS	12.95	9.75	9.05
140003	27C080-12	32	1M x 8 8192kB 120ns (12.5V) CMOS	17.49	15.99	14.49
156283	27C160-10	42	2M x 8 16384kB 100ns (12.5V) CMOS	23.95	21.95	19.75

See EPROM programmers on page 94

EPROM Accessories

Part No.	Cross Ref.	Description	1	10
206922	EP1D	1.1" x 0.46" EPROM & DIP window labels UV opaque, accepts ink or pencil (168 labels per pack)	$6.95	$5.95
13864	CF2	Conductive foam (12" x 24" x .25") hard black	7.95	6.95
66042	DE1	UVP portable EPROM eraser, pg 94	64.95	58.95
15712	DE4	8-chip UV-EPROM eraser, pg 94	129.95	117.95

EEPROM

Dual-In-Line

Part No.	Cross Ref.	Pins	Description	1	10	100
108839	24C02P	8	256 x 8 2048-bit serial (CMOS)	$.79	$.69	$.62
108847	24C04P	8	512 x 8 4096-bit serial (CMOS)	.89	.79	.69
200547	24C08-10	8	1k x 8 1024-bit serial (CMOS)	.99	.89	.80
200555	24C16-10	8	2k x 8 16k serial (CMOS)	1.19	1.09	.95
200563	24C32-10	8	4k x 8 32k serial (CMOS)	1.75	1.69	1.45
200627	24C44	8	16 x 16 256-bit serial (CMOS)	2.49	1.79	1.55
200619	24C65	8	8k x 8 64k serial (CMOS)	1.69	1.59	1.39
200571	24C128-10	8	16k x 8 128k serial (CMOS)	3.75	3.10	2.79
200580	24C256-10	8	32k x 8 256k serial (CMOS)	3.59	2.35	2.15
74691	28C16A-25	24	2k x 8 16k 250ns (5V) CMOS	4.95	4.49	4.05
40416	2817A-25	28	2k x 8 16k 250ns 5V read/write	7.95	7.15	6.49
74827	28C64A-25	28	8k x 8 64k 250ns (5V) CMOS	4.49	4.05	3.65
40475	2865A	28	8k x 8 64k 250ns 5V read/write	4.95	4.49	4.05
74843	28C256-15	28	32k x 8 256k 150ns CMOS	8.95	6.95	6.25
74878	28C256-25	28	32k x 8 256k 250ns CMOS	8.75	6.85	6.05
102058	93C46	8	64 x 16 1024-bit serial (5V)	.59	.49	.45
108855	93C56	8	128 x 16 2048-bit serial (5V)	.69	.59	.49
200598	93C66	8	256 x 16 4096-bit serial (5V)	.69	.62	.55
200601	93C86	8	1k x 16 16k serial (5V)	1.39	1.25	1.15

PROM

Dual-In-Line

Part No.	Cross Ref.	Pins	Description	1	10	100
27844	N82S23	16	32 x 8 256-bit PROM (OC) (27S18)	$5.95	$5.39	$4.85
27764	N82S123	16	32 x 8 256-bit PROM tri-state (27S19)	5.95	5.35	4.85
27772	N82S126	16	256 x 4 1024-bit PROM (OC) (27S20)	6.95	6.25	5.25
27781	N82S129	16	256 x 4 1024-bit PROM tri-state (27S21)	7.95	6.95	6.25
27799	N82S131	16	512 x 4 2048-bit PROM tri-state (27S13)	6.95	6.25	5.65
27801	N82S137	18	1024 x 4 4096-bit PROM tri-state (27S33)	4.95	4.49	4.05
27810	N82S181	24	1024 x 8 8192-bit bipolar PROM tri-state	6.95	5.95	5.39
27836	N82S191	24	2048 x 8 16,384-bit PROM tri-state	6.95	6.25	5.65
48531	74S188	16	32 x 8 Open collector (27S18)	5.95	5.39	4.85
48696	74S287	16	256 x 4 Tri-state (TBP24S10N)	6.95	6.25	5.65
48717	74S288	16	32 x 8 Tri-state (27S19/TBP18S030N)	4.95	4.49	4.05
48805	74S387	16	256 x 4 Open collector (TBP24SA10N)	4.15	3.69	3.51
48864	74S472	20	512 x 8 Tri-state high speed (MB7124)	8.95	7.95	6.95
48910	74S571	16	512 x 4 Tri-state (27S13)	6.49	6.25	5.63
48928	74S573	18	1024 x 4 Tri-state (27S33)	3.05	2.73	2.46

30-Day Money-Back Guarantee

If you're not satisfied we'll take it back! Details on page 181.

Call for pricing on quantities over 100 – we carry major manufacturers. **We will special order any IC – 100 Piece Minimum**

PALs and GALs

Dual-In-Line



Part No.	Cross Ref.	Pins	Description	1	10	100
28020	PAL16L8	20	Octal 16-input AND-OR-INVERT gate array	$2.25	$1.75	$1.66
28038	PAL16R8	20	Octal 16-input reg. AND-OR gate array	.49	.44	.41
88399	16V8-10*	20	10ns 64 x 32 AND array	2.59	2.29	1.99
37452	16V8-15*	20	15ns 64 x 32 AND array	1.39	1.25	1.12
37461	16V8-25*	20	25ns 64 x 32 AND array	1.25	1.09	.99
88292	20V8-10**	24	10ns 64 x 40 AND array	3.29	2.99	2.69
38658	20V8-15**	24	15ns 64 x 40 AND array	1.75	1.55	1.35
38666	20V8-25**	24	25ns 64 x 40 AND array	1.75	1.59	1.45
123801	22V10-10	24	10ns 132 x 44 AND array	5.49	4.99	4.49
39159	22V10-15	24	15ns 132 x 44 AND array	4.49	3.95	3.55
39167	22V10-25	24	25ns 132 x 44 AND array Lattice	3.99	3.49	3.09

GALs are electrically erasable PLDs that can be used in place of numerous PALs

* Replaces PALs: 10H8, 10L8, 10P8, 12H6, 12L6, 12P6, 14H4, 14L4, 14P4, 16H2, 16H8, 16L2, 16L8, 16P2, 16P8, 16R4, 16R6, 16R8, 16RP4, 16RP6,16RP8

** Replaces PALs: 14H8, 14L8, 14P8, 16H6, 16L6, 16P6, 18H4, 18L4, 18P4, 20H2, 20H8, 20L2, 20L8, 20P2, 20P8, 20R4, 20R6, 20R8, 20RP4, 20RP6, 20RP8

PEEL Devices (CMOS)

Dual-In-Line



Programmable Electrically Erasable Logic (PEEL) devices allow for superset replacement of over 40 standard 20-pin and 24-pin PLDs (PAL, GAL, EPLD, etc.). They also offer additional architectural features so more logic can be put into every design.

Part No.	Cross Ref.	Pins	Description	1	10	100
105953	18CV8P-25	20	PLD superset 12 config. I/O pins (8) 25ns	$2.25	$1.95	$1.75
105996	22CV10AP-25	24	PLD superset 4/12 config. I/O pins (10) 25ns	2.59	2.07	1.80

Static RAM

Dual-In-Line



Part No.	Cross Ref.	Pins	Description	1	10	100
38738	2016-12	24	2k x 8 120ns (AM9128-12)	$1.49	$1.29	$1.22
38746	2016-20	24	2k x 8 200ns (MB8128-20)	1.39	1.09	.78
38931	2111-1	18	256 x 4 500ns (AM9111APC)	1.95	1.75	1.59
38957	2114N	18	1k x 4 450ns (9114BPC)	2.25	1.99	1.79
38973	2114N-2	18	1k x 4 200ns (9114EPC) (U214D20)	2.49	2.25	2.05
38981	2114N-2L	18	1k x 4 200ns low power	2.49	2.25	2.05
25911	MK48Z02B-15	24	2k x 8 150ns (16k) zero-power RAM	9.99	8.99	7.99
42198	5101	22	256 x 4 450ns (CMOS)	7.99	7.19	6.49
42788	6116P-1	24	2k x 8 100ns (16kB) CMOS	1.69	1.49	1.35
42796	6116P-2	24	2k x 8 120ns (16kB) CMOS	1.59	1.39	1.25
42809	6116P-3	24	2k x 8 150ns (16kB) CMOS	1.49	1.29	1.15
42737	6116LP-1	24	2k x 8 100ns (16kB) LP CMOS	2.39	1.79	1.25
42753	6116LP-3	24	2k x 8 150ns (16kB) LP CMOS	1.95	1.75	1.58
42921	6264P-10	28	8k x 8 100ns (64kB) CMOS	2.59	2.29	1.99
42930	6264P-12	28	8k x 8 120ns (64kB) CMOS	2.65	2.39	2.15
85121	6264LP-70	28	8k x 8 70ns (64kB) LP CMOS	3.39	2.99	2.49
42884	6264LP-10	28	8k x 8 100ns (64kB) LP CMOS	3.16	2.85	2.55
42892	6264LP-12	28	8k x 8 120ns (64kB) LP CMOS	2.79	2.49	2.19
43238	6514	18	1k x 4 350ns CMOS (M58981P)	2.95	2.75	2.49
41970	43256-10L	28	32k x 8 100ns low power (NEC)	5.49	4.95	4.45
41988	43256-12L	28	32k x 8 120ns low power (NEC)	4.95	4.45	3.99
82472	62256LP-70	28	32k x 8 70ns low power CMOS	5.49	4.99	4.49
42833	62256LP-10	28	32k x 8 100ns low power CMOS	3.95	3.59	3.25
42850	62256LP-12	28	32k x 8 120ns low power CMOS	4.29	3.86	3.49
75037	ATT7C199P-15	28	32k x 8 15ns high speed CMOS (.3"W)	3.39	2.99	2.69
172101	6285128LP-50	32	128k x 8 50ns low power CMOS	10.99	9.99	8.99
131810	628128LP-70	32	128k x 8 70ns low power CMOS	8.95	7.79	6.99
103982	628128LP-85	32	128k x 8 85ns low power CMOS	8.49	7.49	6.75
157358	628512LP-70	32	512k x 8 70ns low power CMOS	19.99	17.99	16.19

Flash Memory

Dual-In-Line



Part No.	Cross Ref.	Pins	Description	1	10	50
185210	28F256-25	32	32k x 8 250ns (12V) CMOS	$4.95	$4.45	$3.99
74771	28F010-15	32	128k x 8 150ns (12V) CMOS	6.95	6.25	5.65
74835	28F020-15	32	256k x 8 150ns (12V) CMOS	7.95	7.15	6.45

AT89C Series

Dual-In-Line

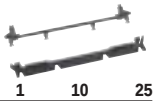


Part No.	Product No.	Pins	Description	1	10	100
168866	AT89C1051-24PC	20	8-bit MCU, 24MHz 1kb flash memory	$3.75	$2.97	$2.55
168874	AT89C2051-24PC	20	8-bit MCU, 24MHz 2kb flash memory	3.75	3.49	3.19
204089	AT89C4051-24PC	20	8-bit MCU, 24MHz 4kb flash mem. 8-bit	4.49	2.95	2.65
168891	AT89C51-20PC	40	8-bit MCU, 20MHz 4kb flash memory	4.25	3.75	3.39
168903	AT89C51-24PC	40	8-bit MCU, 24MHz 4kb flash memory	4.49	3.99	3.59
168920	AT89C52-24PC	40	8-bit MCU, 24MHz 8kb flash memory	5.95	5.39	4.95
168938	AT89C52-24JC	44	8-bit MCU, 24MHz 8kb flash mem. PLCC	4.95	4.49	3.95
168946	AT89C55WD-24PC	40	8-bit MCU, 24MHz 20kb flash memory	7.99	7.19	6.49
204097	AT89S8252-24PC	40	8-bit MCU, 24MHz 8kb flash mem. 2kb EEPROM	6.75	4.49	3.95
204100	AT90S1200-12PC	20	20 AVR 8-bit RISC MCU, 12MHz 1kb prog. flash	2.95	1.95	1.75
204118	AT90S2323-10PC	8	8 AVR 8-bit RISC MCU, 10MHz 2kb prog. flash	3.49	2.19	1.95
204126	AT90S8515-8PC	40	40 AVR 8-bit RISC MCU, 8MHz 8kb prog. flash	7.95	5.49	4.95

CPUs/MPUs

Part No.	Description	MHz	Socket	1	10	25
189261	486 overdrive processor, A80486SX	33	234/PGA	$15.95	$13.95	$12.55
135571	486 speed doubler (SGS), ST486DX2	66	168/PGA	14.45	12.95	11.69
118421	486 speed doubler (Intel), 80486DX2	66	168/PGA	19.95	17.95	16.15
189270	486DX4 (Intel), FC80486DX4	75	208/SQFP	12.95	11.65	10.49
151600	Am486DX4 CPU (AMD)	100	168/PGA	19.95	17.95	15.95
189288	Pentium PRO® processor	150	387/PGA	24.95	22.49	19.95
196162	Pentium PRO® with heat sink & fan	200	387/PGA	59.95	44.95	31.49
125495	Pentium® processor	100	296/PGA	12.95	11.65	10.49
130833	Pentium® processor	133	296/PGA	29.95	26.95	24.25
130841	Pentium® processor	166	296/PGA	54.99	49.99	46.95
189296	Pentium® processor	200	296/PGA	69.95	62.95	56.65
196912	Pentium MMX® processor	166	296/PGA	39.95	35.95	32.49
140054	Pentium MMX® processor	200	376/PGA	49.95	37.45	26.25
150501	Pentium MMX® processor	233	376/PGA	69.95	62.95	54.95
200408	Celeron® processor	366	Socket 370	69.95	62.95	56.55
200387	Celeron® processor	400	Socket 370	74.95	67.95	61.25
200395	Celeron® processor	500	Socket 370	79.95	71.95	64.75
190060	Pentium® II processor with heat sink	233	Slot 1	89.95	79.95	72.95
151651	Pentium® II processor	300	Slot 1	109.99	99.99	89.99
183100	Pentium® II processor	400	Slot 1	124.99	109.99	99.99
183118	Pentium® III processor	600	Slot 1	159.95	144.95	130.45
196533	Pentium® III processor	600	Socket 370	184.95	164.95	148.45
196496	Pentium® III processor	700	Slot 1	164.95	149.95	134.95
196541	Pentium® III processor	700	Socket 370	179.95	159.95	143.95
192735	Athlon, A0700MPR24B	700	Slot A	89.95	79.95	71.95
183134	Pentium® III processor	733	Slot 1	169.95	154.95	139.45
188912	Pentium® III processor	733	Socket 370	184.95	138.95	96.95
192751	Athlon, A0750MPR24B	750	Slot A	129.95	116.95	105.25
196509	Pentium® III processor	850	Slot 1	249.99	224.99	199.99
196568	Pentium® III processor	850	Socket 370	214.95	194.95	175.45
196517	Pentium® III processor	866	Slot 1	224.95	199.95	179.95
196576	Pentium® III processor	866	Socket 370	214.95	194.95	175.45
189253	Athlon, A0900AMT3B	900	Slot A	89.95	89.95	89.95
196525	Pentium® III processor	1.0GHz	Slot 1	364.95	329.95	296.95
196584	Pentium® III processor	1.0GHz	Socket 370	219.95	199.95	179.95
196592	Pentium® 4 processor	1.3GHz	Socket 423	169.95	152.95	137.65
196605	Pentium® 4 processor	1.4GHz	Socket 423	179.95	159.95	143.95
196613	Pentium® 4 processor	1.5GHz	Socket 423	239.95	219.95	197.95
196621	Pentium® 4 processor	1.6GHz	Socket 423	249.95	229.95	206.95
196630	Pentium® 4 processor	1.7GHz	Socket 423	279.95	259.95	233.95

Pentium® II Heat Sink Support



- Compatible with Pentium® heat sinks (P/N 151298, pg 155)

Includes: Plastic fasteners

SALE

Part No.	Description	1	10	25
169009	Pentium® II heat sink support base w/ plastic fasteners	$.95	$.85	$.69

We'll Find Any IC!

Call us with your 100 piece minimum order 1-800-831-4242

Surface Mount

Part Number Color Code
New Sale Refurbished Closeout

Call for pricing on quantities over 100 – we carry major manufacturers. **We will special order any IC – 100 Piece Minimum**

Dynamic and Video RAM

Dual-In-Line

Part No.	Cross Ref.	Pins	Description	1	10	100
41339	4116-15	16	16k x 1 150ns (MM5290J-1R)	$.99	$.89	$.80
191370	HM4816-4	16	16k x 1 120ns	.89	.79	.72
41662	4164-150	16	64k x 1 150ns (MCM6665-15)	.59	.45	.39
41398	41256-120	16	256k x 1 120ns (MB81256-12)	.59	.53	.48
41427	41256-150	16	256k x 1 150ns (P21256-15)	.69	.52	.37
41574	41464-10	18	64k x 4 100ns (HY53C464S-10)	1.49	1.25	1.05
41582	41464-12	18	64k x 4 120ns (MB81464-12)	1.39	1.25	1.09
42219	511000P-10	18	1M x 1 100ns (M5M4C1000-10)	2.25	1.99	1.79
93374	514256P-70	20	256k x 4 70ns (TC514256P-70)	2.79	2.49	2.19
42315	514256P-80	20	256k x 4 80ns (UPD424256-80)	2.49	2.25	2.05
128688	HM514260	SOJ	256k x 16 70ns	3.39	2.99	2.69

Math Coprocessors

Part No.	Cross Ref.	Pins	Description	1	10	25
51941	80387-33	68PGA	33MHz math coprocessors	$15.95	$12.95	$11.65
76531	80387-25SX	68PLCC	25MHz math coprocessors	27.95	24.95	22.45

V20 Chip

Dual-In-Line

Part No.	Cross Ref.	Pins	MHz	Description	1	10	100
34358	UPD70108-8	40	8	V20 chip (replaces the 8088-2)	$10.99	$9.99	$8.99

5000 Series and Clock Chips

Dual-In-Line

Part No.	Cross Ref.	Pins	Description	1	10	50
32803	TCM5089N	16	Integrated tone dialer chip	$4.95	$4.49	$4.05
26091	MM5321N	16	TV camera synchronous generator	7.95	7.15	6.45
26083	MM5314N	24	6-digit LED/incandescent readout clock chip	14.95	13.49	11.95
26171	MM5450N	40	34-segment LED display driver	4.95	4.49	4.05
26201	MM58167AN	24	Microprocessor real time clock	4.95	4.49	3.25
29591	RTC58321B	16	Real time clock module (see page 10)	7.45	6.75	5.95
95530	RTC72421B	18	Real time clock module (see page 10)	6.49	5.69	4.99

6800 Series

Dual-In-Line

Part No.	Cross Ref.	Pins	Description	1	10	100
43481	6800	40	8-bit MCU	$6.95	$6.25	$5.65
43502	6802	40	8-bit MPU with clock and RAM (1MHz)	8.69	7.82	6.99
43529	6803	40	8-bit MCU with 128k RAM	7.79	6.99	6.29
43537	6808	40	8-bit MPU with clock	8.95	6.69	5.43
43545	6809E	40	MPU with external clock (1MHz)	3.95	3.59	3.25
43561	6810	24	128x8 static RAM (1MHz)	1.19	1.09	.99
43596	6821	40	Peripheral interface adapter (1MHz)	3.95	3.59	3.25
43414	68B21	40	Peripheral interface adapter (2MHz)	4.95	4.49	4.05
43617	6840	28	Programmable timer (1MHz)	2.49	2.25	1.99
43633	6850	24	Asynch. comm. int. adapter (ACIA)	2.39	2.09	1.89
25304	MC68000L8	64	MPU 16-bit (8MHz)	9.99	8.99	7.99
25291	MC68000L10	64	MPU 16-bit (10MHz)	14.95	11.20	7.85
25355	MC68701	40	8-bit EPROM MPU w/ 128B RAM & I/O	15.95	13.95	12.55
25363	MC68705P3S	28	8-bit EPROM MPU w/ 112B RAM & I/O	24.95	22.95	20.65
25371	MC68705U3S	40	8-bit EPROM MPU w/ 112B RAM & I/O	29.95	25.95	23.95
191863	MC68HC11E1CP	48	8-bit micro cntl. w/ A/D conv. (512B RAM)	15.95	13.95	12.55
108919	MC68HC705C8P	40	8-bit HCMOS MCU, 8k OTPROM, 24 I/O lines	9.95	7.45	5.90
132484	MC68HC705C8S	40	8-bit HCMOS MCU, 8k bytes, EPROM	38.95	34.95	31.55
108927	MC68HC705K1P	16	8-bit HCMOS MCU, 504B, OTPROM, 10 I/O tmr	7.95	7.15	6.45

Z80 Series

Dual-In-Line

Part No.	Cross Ref.	Pins	MHz	Description	1	10	100
35561	Z80	40	2.5	CPU (MK3880N/780C)	$1.39	$1.19	$1.09
35588	Z80-PIO	40	2.5	Parallel I/O interface controller	.35	.32	.29
35596	Z80A	40	4	CPU (MK3880N-4/780C-1)	1.99	1.79	1.59
35609	Z80A-CTC	28	4	Counter timer circuit (MK3882-4)	2.19	1.95	1.55
35625	Z80A-DART	40	4	Dual asynchronous receiver/transmitter	3.49	3.19	2.89
35641	Z80A-PIO	40	4	Parallel I/O interf. contr. (MK3881-4)	1.49	1.29	1.15
35668	Z80A-SIO/0	40	4	Serial I/O (TxCB & RxCB bond.) MK3884-4	2.19	1.95	1.75
35705	Z80B	40	6	CPU (MK3880N-6)	2.59	2.35	2.09
35781	Z84C00-4	40	4	CPU (Z84C0004PEC) CMOS	4.99	4.49	3.99
35799	Z8530	40	2	Serial communications controller	2.49	1.75	1.25
185332	Z8681	40	2	ROMless MCU	1.25	.79	.75

8000 Series

Dual-In-Line

Part No.	Cross Ref.	Pins	Description	1	10	100
51844	8031	40	CPU with 128 x 8 RAM and I/O	$3.29	$2.99	$2.69
51676	80C31	40	CPU with 128 x 8 RAM and I/O (CMOS)	3.39	2.99	2.69
102197	8032	40	8-bit MCU 256 x 8 RAM	3.95	3.59	3.25
108804	80C32-1	40	8-bit MCU 256 x 8 RAM (CMOS)	4.49	3.99	3.59
51861	8035	40	MPU 8-bit	3.95	3.59	3.25
51959	8039	40	CPU single chip 8-bit (128 bytes RAM)	4.49	3.99	3.59
51692	80C39	40	CPU single chip 8-bit (128 bytes RAM) CMOS	3.99	2.99	2.09
51983	8049*	40	CPU single chip 8-bit (can use for 8039)	1.95	1.75	1.59
51991	8051AP**	40	MCU w/128x8 RAM (book P/N 161402, pg 165)	5.49	4.49	3.99
52003	8052AH**	40	CPU 8-bit 256 bytes RAM, timer/counter & I/O	7.99	5.99	4.20
125647	80C52BASIC	40	CPU 8-bit CMOS with basic interpreter	19.95	17.95	16.15
52046	8080A	40	CPU 8-bit N-channel (1MHz)	4.49	3.95	3.59
52062	8085A	40	CPU 8-bit N-channel (3MHz)	4.99	4.49	3.99
52071	8085A-2	40	CPU 8-bit N-channel (5MHz)	5.49	4.99	4.49
51705	80C85	40	CPU 8-bit N-channel (3MHz)(CMOS)	6.99	5.25	3.67
52100	8086-2	40	CPU 16-bit (8MHz)	1.95	1.75	1.59
52142	8088	40	CPU 16-bit (8-bit data bus) 5MHz	2.49	1.59	1.39
52169	8088-2	40	CPU 16-bit (8-bit data bus) 8MHz	6.49	5.99	5.49
52290	8155	40	HMOS RAM I/O port/timer (3MHz)	4.49	3.37	2.36
52302	8155-2	40	HMOS RAM I/O port/timer (5MHz)	5.95	5.39	4.85
52193	81C55	40	256x8 RAM I/O port/timer (CMOS) 3MHz	3.95	3.59	3.29
52329	8156	40	RAM with I/O port and timer	9.95	7.45	5.25
52468	8212	24	8-bit input/output (74S412)	6.49	5.99	5.49
52484	8216	16	Bi-directional bus driver (non-invert.)	3.95	2.89	2.02
52492	8224	16	Clock generator/driver	2.95	2.49	2.25
52513	8228	28	System contr./bus driver (74S428)	2.95	2.19	1.55
52581	8243	24	I/O expander for 48 series	5.49	4.99	4.49
52610	8250A	40	Asynchronous comm. element	4.95	4.49	4.05
52628	8250B	40	ACE (IBM PC/XT software compat.)	1.55	1.39	1.25
52644	8251	28	Prog. comm. I/O (USART)	2.99	2.69	2.39
52652	8251A	28	Prog. comm. interface (USART)	3.99	3.69	3.39
52370	82C51A	28	Prog. comm. interface (USART) CMOS	4.49	3.99	3.49
52679	8253	24	Prog. interval timer	4.49	3.99	3.49
52687	8253-5	24	Prog. interval timer (2MHz)	4.99	4.49	3.99
52388	82C53-5	24	Prog. interval timer (CMOS) 2MHz	4.95	4.49	4.05
180427	82C53-5SSOP✦	32	Prog. interval timer (CMOS) 2MHz (PLCC)	2.95	2.49	2.22
52708	8254	24	Prog. interval timer (UPD71054)	4.49	3.99	3.59
52716	8254-2	24	Prog. interval timer (10MHz)	6.69	5.99	5.49
52396	82C54	24	Prog. interval timer (CMOS)	3.95	2.95	2.07
52409	82C54-2	24	Prog. interval timer (CMOS) 10MHz	4.49	3.99	3.59
52724	8255	40	Prog. peripheral I/O (PPI) 71055 (2MHz)	4.49	3.99	3.49
52732	8255A-5	40	Prog. peripheral I/O (PPI) 5MHz	5.49	4.99	4.49
52417	82C55A	40	Prog. peripheral I/O (PPI) CMOS	4.99	4.49	3.99
52425	82C55A-5	40	Prog. peripheral I/O (PPI) CMOS (5MHz)	4.49	3.99	3.49
52759	8256	40	Multif. universal asynch. rec./trans.	19.99	17.99	15.99
52775	8259	28	Prog. interrupt controller (UPD71059)	1.75	1.55	1.45
52783	8259-5	28	Prog. interrupt controller (8259A-2)	2.49	2.19	1.99
52821	8275	40	Prog. CRT controller	12.95	9.75	6.85
52839	8279	40	Prog. keyboard/display interface	12.99	11.99	10.99
52847	8279-5	40	Prog. keyboard/display interface (5MHz)	13.99	12.59	11.35
52855	8282	20	Octal latch (UPD71082)	6.49	5.99	5.49
52863	8283	20	Octal latch inverts input data at outputs	.69	.62	.34
52871	8284A	18	Clock gen. and driver (UPD71084)	4.49	3.99	3.59
52898	8286	20	Octal bus transceiver (UPD71086)	3.95	3.59	3.25
52901	8287	20	Octal bus transceiver (inverted)	10.95	9.95	8.95
52919	8288	20	Bus controller (UPD71088) 82C88-2	1.95	1.75	1.39
53006	8741	40	8-bit univ. peripheral interface (EPROM)	7.99	7.19	6.49
53014	8742	40	8-bit univ. peripheral interface	9.95	7.45	5.22
53022	8748	40	CPU 8-bit, EPROM, RAM and I/O (21V)	13.95	12.95	11.95
53031	8748H	40	CPU 8-bit, EPROM, RAM & I/O HMOS (21V)	15.95	14.49	12.99
53057	8749H	40	MPU 8-bit (EPROM version 8049)	22.99	19.99	17.95
53073	8751	40	CPU w/ 4kx8 EPROM & 128x8 RAM (3.5-8MHz)	19.99	17.99	16.19
53081	8751H	40	CPU w/ 4kx8 EPROM & 128x8 RAM (1.2-12MHz)	28.50	20.25	14.99
52978	87C51	40	CPU w/ 4kx8 EPROM & 128x8 RAM(3.5-12MHz)	21.99	19.99	17.99
196120	P87C51	40	CPU w/ 4kx8 EPROM & 128x8 RAM(3.5-12MHz)OTP	12.95	11.95	10.75
53090	8755	40	16k EPROM with I/O	8.95	8.09	7.29

*** 8049 (ROM not available for use) Tie pin 7 high to bypass the internal ROM to convert 8049 to 8039** **** Tie pin 31 low to bypass the internal ROM** ✦ **Surface Mount**

Call for pricing on quantities over 100 – we carry major manufacturers. **We will special order any IC – 100 Piece Minimum**

9000 Series

Dual-In-Line

Part No.	Cross Ref.	Pins	Description	1	10	100
53663	9368	16	FND70 driver/latch	$4.49	$3.95	$3.55
10567	AM9513APC	40	System timing controller	39.95	32.95	29.65

Dallas Semiconductor

Dual-In-Line

Part No.	Product No.	Pins	Description	1	10	100
114198	DS1210	8	Nonvolatile controller chip	$3.95	$3.59	$3.25
114219	DS1213C	28	SmartSocket 64K/256k	13.95	12.95	11.65
133410	DS1216C	28	Smartwatch/RAM 64K/256k	26.95	24.25	21.95
114260	DS1220Y-150	24	16k nonvol. SRAM 10%pwr, 4.25V WP	11.95	10.95	9.85
114278	DS1225AB-150	28	64k nonvol. SRAM 5%pwr, 4.62V WP	15.95	12.95	8.75
114286	DS1225AD-150	28	64k nonvol. SRAM 10%pwr, 4.37V WP	11.95	10.95	9.85
114307	DS1225Y-200	28	64k nonvol. SRAM 10%pwr, 4.25V WP	15.95	14.49	11.65
177113	DS1230Y-100	28	256k nonvol. SRAM 10%pwr, 4.37V WP	17.95	15.95	14.45
114323	DS1230Y-150	28	256k nonvol. SRAM 10%pwr, 4.37V WP	19.95	15.95	11.95
114331	DS1232	8	Micromonitor chip	2.16	1.95	1.75
133444	DS1286	28	Watchdog timekeeper (50-Byte RAM)	19.95	17.95	11.70
76646	DS1287	24	Real time clock with RAM (MC146818A)	5.95	5.39	4.85
114366	DS1287A	24	Real time clock with RAM & clear	5.69	5.10	4.53
176778	DS1302	8	Trickle charge time keeping IC	2.49	2.25	2.05
114374	DS1387	24	RAMified real time clock 4kx8	9.95	8.95	8.05
114382	DS1620	8	Digital thermometer and thermostat	5.49	4.95	4.45
133452	DS12887	24	Real time clock chip	6.95	6.25	5.65
114403	DS80C320-MCG	40	High speed micro 25MHz	14.95	12.95	7.95

Microchip CMOS PIC Microcontrollers

Dual-In-Line

Part No.	Product No.	Pins	Conf.	Speed (MHz)	EPROM Bits	RAM Bytes	I/O Lines	1	10	100
145040	PIC12C508-04/P	8	OTP	4	512 x 12	25	5	$1.89	$1.59	$1.29
145058	PIC12C509/JW	8	EPROM	4	1k x 12	41	5	12.95	11.95	10.95
144258	PIC12C509-04/P	8	OTP	4	1k x 12	41	5	1.95	1.75	1.49
200475	PIC12CE518-04/P	8	OTP	4	512 x 12	25	6	1.89	1.75	1.59
200483	PIC12CE519-04/P	8	OTP	4	1k x 12	41	6	2.10	1.89	1.70
193455	PIC12C671-04/P	8	OTP	4	1k x 14	128	6	2.79	2.51	2.25
193463	PIC12C672-04/P	8	OTP	4	2k x 14	128	6	2.79	2.51	2.25
200459	PIC16C505-04/P	14	OTP	20	1k x 12	72	12	2.05	1.85	1.67
128338	PIC16C54A-04/P	18	OTP	4	512 x 12	25	12	3.29	2.69	2.49
200416	PIC16C55A-04/P	28	OTP	4	512 x 12	24	20	2.79	2.51	2.25
134172	PIC16C56-RC/P	18	OTP	20	1k x 12	25	12	3.75	3.49	3.25
134181	PIC16C57/JW	28	EPROM	20	2k x 12	72	20	13.95	12.95	11.95
193341	PIC16C57C-04/P	28	OTP	4	2k x 12	72	20	3.25	2.92	2.63
193375	PIC16C58B-04/P	18	OTP	4	2k x 12	73	12	2.20	1.98	1.85
193383	PIC16C622A-04/P	18	OTP	4	2k x 14	128	13	3.09	2.78	2.50
193439	PIC16F627-20/P	18	Flash	20	1k x 14	224	16	3.39	3.05	2.74
193447	PIC16F628-20/P	18	Flash	20	2k x 14	224	16	3.25	2.92	2.63
193324	PIC16C63A-20/SP	28	OTP	20	4k x 14	192	22	5.75	5.20	4.68
200424	PIC16C66-04/P	28	OTP	4	8k x 14	368	33	7.75	6.95	6.25
193359	PIC16C711-04/P	8	OTP	4	1k x 14	68	13	4.19	3.75	3.39
200467	PIC16C715-04/P	18	OTP	4	2k x 14	128	13	4.69	4.25	3.79
200432	PIC16C72A-04/P	28	OTP	4	2k x 14	128	22	5.19	4.67	4.20
200441	PIC16C73A-04/P	28	OTP	4	4k x 14	192	22	9.25	8.33	7.49
193391	PIC16F73-I/SP	28	Flash	20	4k x 13	192	5	5.29	4.75	4.25
145091	PIC16C74A/JW	40	EPROM	20	14k x 14	192	33	20.95	18.95	16.95
193404	PIC16F74-I/P	40	Flash	20	4k x 14	192	8	6.49	5.84	5.25
193412	PIC16F76-I/P	28	Flash	20	8k x 14	368	5	7.59	6.83	6.15
193421	PIC16F77-I/P	40	Flash	20	8k x 14	368	8	8.19	7.37	6.63
145111	PIC16F84-04/P	18	Flash	4	1k x 14	68	13	5.95	5.35	4.75
145120	PIC16F84-10/P	18	Flash	10	1k x 14	68	13	7.95	7.19	6.49
193332	PIC16F84A-20/P	18	Flash	20	1k x 14	68	13	5.95	5.35	4.82
193367	PIC16F876-20/SP	28	Flash	20	256 x 8	368	22	8.19	7.37	6.63
176882	PIC16F877-20/P	40	Flash	20	256 x 8	368	33	9.49	8.49	7.49
200491	PIC18C242-I/SP	28	OTP	40	16k x 16	512	23	7.55	6.79	6.15
200504	PIC18C252-I/P	28	OTP	40	32k x 16	1536	23	8.20	7.38	6.65
200512	PIC18C452-I/P	40	OTP	40	32k x 16	1536	23	9.10	8.19	7.35
200521	PIC18C452/JW	40	EPROM	40	32k x 16	1536	23	21.95	20.95	19.75

Holtek Remote Control Encoders/Decoders

Part No.	Product No.	Pins	Description	1	10	100
123730	HT12E	18	Encoder 12-bit	$1.69	$1.49	$1.25
123748	HT12D	18	Decoder 8-bit address / 4-bit data	1.69	1.49	1.35
126594	HT640	24	Encoder 10-bit address / 8-bit address/data	2.95	2.75	2.49
126607	HT648L	24	Decoder 10-bit address / 8-bit latch data	3.29	2.99	2.69

6500 Series/Commodore

Dual-In-Line

Part No.	Cross Ref.	Pins	Description	1	10	100
43191	6502	40	MPU with internal clock (1MHz)	$7.95	$5.95	$4.19
43166	65C02	40	MPU with internal clock (CMOS)	6.95	6.25	5.65
43254	6522	40	VIA (versatile interface adapter) 1MHz	2.39	2.15	1.94
43297	6532	40	128 x 8 RAM, I/O timer array	7.95	6.99	6.49
43318	6551	28	ACIA (asynch. comm. interface adptr)	3.95	3.49	3.15
43182	65C51	28	ACIA (asynch. comm. interface adptr) CMOS	2.95	2.75	2.49

UARTs

Dual-In-Line

Part No.	Cross Ref.	Pins	Description	1	10	100
43158	6402	40	CMOS/LSI UART (TR1863)	$4.95	$4.49	$4.05
27570	NS16C450N	40	CMOS ACE (IBM-AT compat.) (82C450)	5.95	5.39	4.85
27596	NS16550AN	40	Univ. asynch. rcvr./trans. w/ FIFO (PC16550DN)	5.95	5.39	4.85

A/D & D/A Converters

Dual-In-Line

Part No.	Cross Ref.	Pins	Description	1	10	100
10145	ADC0803LCN	20	8-bit A/D converter (±1/2 LSB)	$6.95	$5.95	$5.39
10153	ADC0804LCN	20	8-bit A/D converter (1 LSB)	2.69	2.39	2.09
10170	ADC0808CCN	28	8-bit A/D converter with 8-ch. multiflexer	5.95	5.39	4.85
10188	ADC0809CCN	28	8-bit A/D converter with 8-ch. multiflexer	2.95	2.75	2.49
10209	ADC0817CCN	40	8-bit A/D converter with 16-ch. multiflexer	9.95	8.95	8.05
10225	ADC0820CCN	20	8-bit hi-spd. A/D conv. with track/hold	4.95	4.49	4.05
116100	ADC0831CCN	8	8-bit A/D converter w/ single diff. input	1.95	1.75	1.59
14904	DAC0800LCN	16	8-bit D/A converter (±1 LSB)	1.79	1.59	1.45
14912	DAC0806LCN	16	8-bit D/A convtr. (±1 LSB) MC1408P6	4.95	4.49	4.05
14947	DAC0808LCN	16	8-bit D/A converter (MC1408P8)	1.89	1.49	1.12
14963	DAC0830LCN	20	8-bit µP D/A converter (.05% Lin.)	5.95	4.59	4.15
128186	DAC0832LCN	20	8-bit µP D/A conv. dbl. buff. (.05% Lin.)	3.95	3.59	3.25

Harris/Intersil Type Series

Dual-In-Line

Part No.	Cross Ref.	Pins	Description	1	10	100
43748	7106CPL	40	3 1/2-digit LCD single-chip A/D converter	$2.99	$2.69	$2.39
43756	7107CPL	40	3 1/2-digit LED single-chip A/D converter	2.99	2.69	2.39
43764	7109CPL	40	12-bit A/D converter	6.99	6.29	5.69
43801	7217AIPI	28	4-digit LED up/down cntr. (com. cathode)	8.95	7.95	7.15
51140	7555IPA	8	CMOS timer (LM555CN)	.59	.49	.45
51174	7660CPA	8	CMOS volt converter (+5 to ±5V) (M660AN)	1.19	1.10	.99
172152	8020ACPD	14	Quad current switch for D/A conversion	.25	.19	.15
51879	8038CCPD	14	Waveform generator/volt control OSC	3.49	3.25	2.95

Motorola Type Series

Dual-In-Line

Part No.	Cross Ref.	Pins	Description	1	10	100
25435	MC846P	14	Quad 2-input gate	$3.95	$2.95	$1.95
24942	MC1350P	8	Video IF amp (12V operation)	1.29	1.19	1.09
14947	MC1408-8	16	8-bit D to A converter (DAC0808LCN)	1.89	1.49	1.12
118578	MC1495L	14	Linear four quadrant multiplier	9.95	8.95	8.05
23211	MC1496P	14	Balanced modulator/demodulator (LM1496N)	.89	.79	.69
25216	MC3479P	16	Biphase stepper motor driver	5.75	5.18	4.65
25232	MC3486P	16	Quad EIA-422/423 line rec. w/ 3-state outputs	.59	.49	.45
25259	MC3487P	16	Quad EIA-422 line driver w/ 3-state outputs	.69	.62	.55
25275	MC4044P	14	Frequency phase detector (11C44)	9.99	8.99	8.19
25355	MC68701	40	8-bit EPROM (2048) w/ 128B RAM & I/O	15.95	13.95	12.55
25021	MC14411P	24	Bit rate frequency generator	6.95	5.35	3.75
25064	MC14490P	16	Hex contact bounce eliminator	6.95	6.25	5.59
118586	MC145151P	28	Parallel input PLL freq. synthesizer	5.95	5.39	4.85
25099	MC145406P	16	RS232-C/V.28 driv./rec. (CMOS) (75C1406N)	1.95	1.59	1.59
25101	MC146818	24	Real time clock plus RAM	4.95	4.49	4.05

Part Number Color Code Legend: New | Sale | Refurbished | Closeout

Part Number Color Code: New Sale Refurbished Closeout

Call for pricing on quantities over 100 – we carry major manufacturers. **We will special order any IC – 100 Piece Minimum**

Signetics Type Series — Dual-In-Line

Part No.	Cross Ref.	Pins	Description	1	10	100
27844	N82S23	16	256-bit PROM open collector	$5.95	$5.39	$4.85
27748	N82S100	28	Field prog. logic array (16x4x8 tri-state)	14.95	13.49	12.15
27764	N82S123	16	256-bit PROM (32x8 tri-state) (27S19)	5.95	5.35	4.85
27772	N82S126	16	1024-bit PROM (256x4 open collector) (27S20)	6.95	6.25	5.25
27781	N82S129	16	1024-bit PROM (256x4 tri-state) (AM27S21)	7.95	6.95	6.25
27799	N82S131	16	2048-bit PROM (512x4 tri-state) (AM27S13)	6.95	6.25	5.65
27801	N82S137	18	4096-bit PROM (1024x4 tri-state)	4.95	4.49	4.05
27810	N82S181	24	8192-bit bipolar PROM (1024x8 tri-state)	6.95	5.95	5.39
27828	N82S185	18	8192-bit PROM (2048x4 tri-state)	5.45	4.09	2.85
27836	N82S191	24	16,384-bit PROM (2048x8 tri-state)	6.95	6.25	5.65

ISD Voice Chips — Dual-In-Line

Single-Chip Voice Record/Playback Devices

10 to 240 Second Durations (28-pin DIP)



107334

- Easy-to-use single-chip voice recording and playback
- Manual switch or microprocessor controllable
- Directly cascadable for longer durations
- Fully addressable to handle multiple messages
- Zero-power message storage – eliminates battery backup circuits
- Single voltage operation: +5V (4.5V to 5.5V operating range)
- Automatic power-down (push-button mode)
- Playback can be edge or level-activated • On-chip clock source
- 1 µA standby current (typical) • 100k record cycles (typical)
- 100-year message retention (typical) • On-chip automatic gain control (AGC)

Part No.	Product No.	Description	1	10	50
141671	ISD1110P	Voice record/playback (10 sec.)	$4.95	$4.49	$3.95
107334	ISD1420P	Voice record/playback (20 sec.)	5.95	5.39	4.95
120643	ISD2560	Voice record/playback (60 sec.)	9.95	8.95	7.95
120660	ISD2590	Voice record/playback (90 sec.)	9.95	8.95	7.95
141655	ISD25120P	Voice record/playback (120 sec.)	9.95	8.95	7.95

Microcontrollers

80C52-BASIC Microcontroller

The 80C52-BASIC chip is a custom-masked 80C52 microcontroller with a full-featured 8k-byte ROM-resident BASIC-52 interpreter.



Hardware: • On-chip oscillator and clock circuit
• Operates DC to 12MHz • 256 x 8-bit RAM
Software: • Full BASIC interpreter in ROM on a single chip
• "Stand-alone" software development
• Interrupts can be handled by BASIC or Assembly Language

Part No.	Product No.	Description	1	10	100
125647	80C52BASIC	CPU 8-bit CMOS w/ BASIC interpreter	$19.95	$17.95	$16.15

PARALLAX

50MIPS SX Microcontrollers

Part No.	Parallax No.	Description	1	10
162940	SX18AC/DP	18-pin DIP package	$4.95	$4.75
162931	SX28AC/DP	28-pin DIP package	5.49	5.25

E-Lab Digital Interface ICs

Stepper Motor Controllers

Designed to interface a logic level input byte to a stepper motor.

Part No.	Product No.	Pins	Description	1	10	50
141532	EDE1200	18	Unipolar stepper motor controller	$8.95	$7.95	$6.95
157526	EDE1204	18	Bipolar stepper motor controller	8.95	7.95	6.95

Keypad Encoder

Designed to interface a matrix type 4 row x 4 column (16 key or less) keypad to a microcontroller or other host processor.



Part No.	Product No.	Pins	Description	1	10	50
171969	EDE1144	18	Keypad Encoder	$6.95	$6.25	$5.59

Serial LCD Interface

Provides a cost-effective LCD control solution for a wide variety of embedded designs. Allows nearly any-text based LCD module to be controlled via a simple one-wire data link.



Part No.	Product No.	Pins	Description	1	10	50
171951	EDE702	18	Serial LCD Interface	$8.95	$7.95	$6.95

EPSON Real Time Clock Modules — Dual-In-Line

RTC58321B: 16-Pin Clock Module

- Frequency stability: ±50ppm • Built-in 32.768kHz quartz crystal
- Addressable counter start, stop, and reset function • 12 or 24-hour format
- Automatic leap year setting • Microprocessor compatible 4-bit data bus

Part No.	Product No.	Description	1	10	50
29591	RTC58321B	16-pin clock module	$7.45	$6.75	$5.95

RTC72421B: 18-Pin Clock Module

- Frequency stability: ±50ppm • Built-in quartz crystal makes board design easy
- Direct bus-compatibility (120 nsec access time) • Interrupt masking
- 30 seconds error adjustment function

Part No.	Product No.	Description	1	10	100
95530	RTC72421B	18-pin clock module	$6.49	$5.69	$5.59

PTC Princeton Technology Controller ICs

16-Pin IR Remote Control Transmitter

Infrared remote control transmitter utilizing CMOS technology, capable of 18 functions and a total of 75 commands. Great for TV and VCR control applications.

Part No.	Product No.	Pins	Description	1	10	50
173041	PT2248	16	IR remote control transmitter	$1.95	$1.75	$1.59

24-Pin IR Remote Control Receiver

Infrared remote control receiver utilizing CMOS technology, capable of controlling 18 functions. A remote control system can be constructed using this chip and the PT2248 (P / N 173041). Code detection circuit and digital filtering prevent interference from various types of IR devices. Great for audio equipment, TV and VCR applications.

Part No.	Product No.	Pins	Description	1	10	100
173059	PT2250A	24	IR remote control receiver	$2.49	$2.25	$1.95

18-Pin Remote Fan Controller

High performance electronic fan controller LSI. Speed control, off-timer, rhythm wind, sleep mode, head swing and / or light control all built in.

Part No.	Product No.	Pins	Description	1	10	100
173016	PT2128A-C81	18	Remote fan controller	$.95	$.85	$.75

KAE Servo and Stepper Motor Controllers

Controllers operate from standard 8-bit serial interface (RS232 or RS485). Using RS485, any mix of up to 32 controllers may be operated from a single serial port. Complete documentation.

146472: PIC-SERVO Motion Control Chipset for DC Motors



175901

- PIC servo control for DC motors with digital encoders
- 32-bit position, velocity, and acceleration resolution
- PWM and direction outputs connect to servo amplifier
- Two chip set (PIC-SERVO 28-pin and PIC-ENC 18-pin)

175901: PIC-STEP Motion Control Chip for Stepper Motors

- Step rates up to 50,000 steps/sec. – suitable for use with microstepping drivers
- Trapezoidal positioning and profiled velocity modes
- Programmable current limits automatically switch between holding and running currents • Programmable accelerations and minimum step rates

Part No.	Description	Pins	1	10	50
146472	PIC-SERVO chip set, 0.3" DIP	28/18	$34.95	$29.95	$27.95
175901	PIC-STEP chip, 0.3" DIP	28	29.95	26.95	24.25

SOCKETS Pages 82 - 83



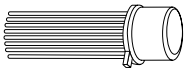
We'll match the advertised price of any like product.

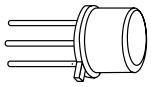
Jameco's Low-Price Guarantee

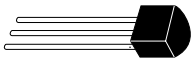
It's that simple!

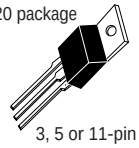
Call for pricing on quantities over 100 – we carry major manufacturers. **We will special order any IC – 100 Piece Minimum**

TO-3 package  2 or 4-pin

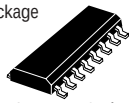
TO-5 package  8-pin

TO-39 package  3-pin

TO-92 package  3-pin

TO-220 package  3, 5 or 11-pin

DIP package  8, 10, 14, 16, 18, 20 or 28-pin

SOIC & SOT-223 package  8, 14 or 16-pin

Linear Series

Package (See above)

✳ **Prepackaged: please order in increments of 10 or 100**

Part No.	Cross Ref.	Pkg.	Description	1	10	100
23051	LH0002CN	DIP-10	Current amplifier	$9.95	$8.95	$7.95
27852	OP07	DIP-8	Ultra-low-offset-voltage op amp.	.99	.89	.79
193471	OP07CD◆	SOIC-8	Precision op amp.	1.19	.99	.75
120715	LM10CN	DIP-8	Op amp and voltage reference	5.95	4.45	3.92
23106	LM10CLN	DIP-8	Low voltage (1.1 volt) op amp.	3.25	2.75	2.49
25751	MF10CN	DIP-20	General purpose dual active filter	3.25	2.75	2.49
120723	LM12CLK	TO-3/4	80W op amp.	29.95	27.95	25.95
16301	DS0026CN	DIP-8	Dual mos clk. driver (5MHz)(TC426CPA)	1.95	1.56	1.19
107094	LM34CZ	TO-92	Prec. F temp. sensor (-40˚F to +230˚F)	5.95	5.39	4.95
193480	LM34DM◆	SOIC-8	Prec. F temp. sensor (-55˚F to 300˚F)	✳	1.35	.99
155192	LM34DZ	TO-92	Prec. F temp. sensor (+32˚F to +212˚F)	1.75	1.55	1.35
193498	LM35DM◆	SOIC-8	Prec. C temp. sensor (-55˚C to 150˚C)	1.75	1.49	1.09
192217	LM35DT	TO-220/3	Prec. C temp. sensor (-55˚C to 150˚C)	2.79	2.09	1.49
107107	LM35CZ	TO-92	Prec. C temp. sensor (-40˚C to 110˚C)	5.95	5.39	4.95
155740	LM35DZ	TO-92	Prec. C temp. sensor (0˚C to +100˚C)	1.75	1.55	1.35
33161	TL062CP	DIP-8	Low-power JFET op amp. (VCC 8-pin)	.45	.39	.35
33187	TL071CP	DIP-8	Low noise JFET op amp.	.39	.35	.29
193501	TL072CD◆	SOIC-8	Low noise JFET dual op amp.	.39	.29	.25
33195	TL072CP*	DIP-8	Low noise JFET dual op amp.	.39	.35	.29
193519	TL074CD◆	SOIC-8	Low noise JFET quad op amp.	.49	.45	.39
33216	TL074CN*	DIP-14	Low noise JFET quad op amp.	.55	.45	.39
33232	TL081CP	DIP-8	JFET-input op amp.	.39	.35	.31
193527	TL082CD◆	SOIC-8	JFET input dual op amp.	.44	.39	.35
33241	TL082CP*	DIP-8	JFET input dual op amp.	.49	.45	.39
193535	TL084CD◆	SOIC-14	JFET input quad op amp.	.49	.45	.39
33267	TL084CN*	DIP-14	JFET-input quad op amp.	.55	.45	.39
24811	MAX232CPE*	DIP-16	Dual RS232 receiver/transmitter	1.95	1.75	1.57
23392	LM301N*	DIP-8	Improved op amp.	.39	.35	.29
23464	LM308N*	DIP-8	Precision op amp.	4.49	3.95	3.59
23499	LM309K	TO-3/2	5V 1A regulator (0˚C to +125˚C)	4.95	4.49	3.95
193543	LM311D◆	SOIC-8	Voltage comparator	.23	.21	.19
23528	LM311N*	DIP-8	Voltage comparator	.35	.25	.19
192268	LM317AT	TO-220/3	3-terminal adjustable regulator	1.95	1.49	1.09
192276	LM317HVT	TO-39/3	3-terminal adjustable regulator	2.75	2.09	1.49
23544	LM317K	TO-3/2	1.5A adj. pos. reg. (1.2V-37V)	1.95	1.75	1.55
193551	LM317LM◆	SOIC-8	3-terminal adjustable regulator	.45	.35	.29
23552	LM317LZ	TO-92	100mA adj. pos. reg. (1.2V-37V)	.49	.39	.29
23579	LM317T**	TO-220/3	1.5A adj. pos. reg. (1.2V-37V)	.49	.44	.39
23608	LM318N	DIP-8	Precision hi-speed op amp.	.69	.59	.49
23632	LM319N	DIP-14	Hi-speed dual comparator	.75	.65	.55
23667	LM323K	TO-3/2	5V 3A positive reg.	3.95	3.59	3.25
23683	LM324N**	DIP-14	Low power quad op amp. (ULN4336)	.29	.25	.22
86721	LM324D◆	SOIC-14	Low power quad op amp.	.29	.21	.18
192559	LP324N	DIP-14	Micropower quad op amp.	1.39	.99	.75
23721	LM331N	DIP-8	Prec. volt to freq. converter (150ppm/°C)	2.95	2.75	2.49
23739	LM334Z	TO-92	Adjust current source	.79	.69	.59
120820	LM335AZ	TO-92	Precision temperature sensor	2.95	2.75	2.36
193560	LM335M◆	SOIC-8	Precision temperature sensor	1.95	1.49	1.09
23755	LM335Z	TO-92	Volt mode temperature sensor	.99	.89	.79
193578	LM336M-2.5◆	SOIC-8	Precision 2.5V shunt regulator diode	.79	.59	.45
23771	LM336Z	TO-92	Voltage reference (2.5V)	.79	.69	.59
23798	LM337K	TO-3/2	1.5A/3 term. adj. neg. reg.	3.49	3.15	2.59
193586	LM337LM◆	SOT-223	1.5A/3-terminal adj. neg. regulator	1.39	.99	.79
23819	LM337T*	TO-220/3	1.5A/adj. neg. reg. (-1.2V-37V)	.79	.69	.59
23835	LM338K	TO-3/2	5A adj. pos. reg. (1.2V-32V)	3.95	3.59	3.25
192284	LM338T	TO-220/3	5A adjustable regulator	2.59	1.95	1.45
193594	LM339M◆	SOIC-14	Low pwr. low offset volt quad comparator	.29	.25	.22
23851	LM339N**	DIP-14	Quad comparator	.29	.25	.22

*10 pcs. in Linear kit on page 12 **20 pcs. in Linear kit on page 12 ◆ Surface Mount

Linear Series

Package (See above)

✳ **Prepackaged: please order in increments of 10 or 100**

Part No.	Cross Ref.	Pkg.	Description	1	10	100
22904	LF347N	DIP-14	Quad JFET input op amp. (wide band)	$.53	$.48	$.44
23915	LM348N	DIP-14	Quad 741 op amp. (UPC4741C)	.49	.45	.39
23931	LM350K	TO-3/2	3A/3 term. adj. pos. reg. (1.2V-33V)	3.95	3.59	3.25
23940	LM350T	TO-220/3	3 amp. adj. power regulator	1.99	1.79	1.19
22912	LF351N	DIP-8	BIFET op amp.	.49	.45	.39
22939	LF353N*	DIP-8	Dual BIFET op amp. (comp. w/ TL082CP)	.39	.35	.29
193607	LF356M◆	SOIC-8	JFET input op amp. (wide band)	.79	.69	.62
22971	LF356N*	DIP-8	JFET input op amp. (wide band)	.79	.69	.59
120862	LM358AN	DIP-8	Low power dual op amp. (elect improv.)	.69	.59	.49
193615	LM358D◆	SOIC-8	Low power dual op amp.	.25	.22	.18
23966	LM358N*	DIP-8	Low power dual op amp.	.29	.25	.19
24037	LM380N	DIP-14	2-watt audio power amp.	1.19	1.09	.99
24088	LM383T	TO-220/5	7-watt audio high power amp.	5.95	5.39	4.95
24096	LM384N	DIP-14	5-watt audio amp.	1.75	1.55	1.35
120889	LM385BZ2.5	TO-92	Volt. ref. diode (2.5V±1.5%)	1.35	1.23	1.10
24109	LM385Z	TO-92	Volt. ref. diode (2.5V±3%)	.59	.47	.35
24117	LM385Z12	TO-92	Micropower volt. ref. diode (1.2V)	.79	.69	.59
193623	LM386M-1◆	SOIC-8	Low volt. audio power amp. 250mW/12V	.29	.27	.25
24125	LM386N-1*	DIP-8	Low voltage audio amp. 250mW/6V	.39	.35	.29
24133	LM386N-3*	DIP-8	Low voltage audio amp. 500mW/9V	.79	.62	.55
193631	LM393D◆	SOIC-8	Low power offset voltage dual comparator	.25	.22	.19
24281	LM393N*	DIP-8	Dual comparator	.35	.29	.25
23000	LF398N	DIP-8	Sample and hold circuit	1.69	1.49	1.29
23018	LF411CN*	DIP-8	Low offset drift JFET input op amp.	.79	.69	.59
193640	LF412CD◆	SOIC-8	Low offset drift JFET input dual op amp.	1.09	.89	.65
23026	LF412CN*	DIP-8	Low offset drift JFET input dual op amp.	1.35	1.01	.71
33347	TL431CLP	TO-92	Program precision reference	.25	.22	.19
33355	TL494CN	DIP-16	Control. ckt. pulse width modulated	.79	.69	.59
27422	LM555CN**	DIP-8	Timer (MC1455P/NE555V)	.29	.26	.23
86799	LM555CM◆	SOIC-8	Timer (NE555D)	.28	.25	.22
126797	LMC555CN*	DIP-8	CMOS 555 timer	.54	.49	.44
34930	XRL555	DIP-8	Micro power 555 timer	.89	.79	.69
193658	LM556CM◆	SOIC-14	Dual 555 timer	.39	.35	.29
24328	LM556N*	DIP-14	Dual 555 timer (MC3456P)	.49	.45	.39
180419	HA17558	DIP-8	Dual op amp.	.22	.20	.18
27457	NE558N	DIP-16	Quad timer (NE558C)	.69	.59	.49
27473	NE564N	DIP-16	High frequency phase locked loop	1.95	1.75	1.55
24352	LM565N	DIP-14	Phased locked loop	1.49	1.29	1.19
193666	LM567CM◆	SOIC-8	Tone decoder	.69	.59	.45
24395	LM567V	DIP-8	Tone decoder	.49	.45	.39
27490	NE571N	DIP-16	Compander, subscriber	3.29	2.99	2.69
143976	LMC660CN	DIP-14	CMOS quad operational amp.	1.55	1.39	1.25
120926	LM675T	TO-220/5	Power op amp.	6.95	6.25	5.49
24467	LM723CN*	DIP-14	Voltage regulator (2V-37V)	.39	.35	.29
24483	LM725CN	DIP-8	Instrumentation op amp.	2.75	2.49	2.25
24491	LM733CN	DIP-14	Differential amp.	.99	.89	.79
24521	LM741CH	TO-5/8	Op amp.	2.25	1.95	1.75
24539	LM741CN**	DIP-8	Op amp. (ULN2151)	.29	.25	.19
193674	LM741CM◆	SOIC-8	Op amp.	.29	.25	.22
24563	LM747CN	DIP-14	Dual 741 op amp.	3.95	3.59	3.25
143896	LM837N	DIP-14	Low-noise quad operational amp.	1.49	1.35	1.19
192292	LM1086CTADJ	TO-220/3	1.5A low drop out positive regulator	1.65	1.19	.89
192305	LM1086CT-3.3	TO-220/3	1.5A low drop out positive regulator (3.3V)	1.49	1.19	.89
192313	LM1086CT-5.0	TO-220/3	1.5A low drop out positive regulator (5V)	1.65	1.19	.89
119706	LM1203N	DIP-28	RGB video amp system	1.49	1.39	1.19
192532	LM13700N	DIP-16	Dual op transcon. amp. w/ diodes & buffer	1.65	1.19	.89
23131	LM1458N*	DIP-8	Dual op amp. (RC4558)	.29	.26	.22
193682	LM1458M◆	SOIC-8	Dual op amp.	.29	.25	.22

*10 pcs. in Linear kit on page 12 **20 pcs. in Linear kit on page 12 ◆ Surface Mount

Surface Mount

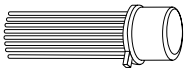
Part Number Color Code: New Sale Refurbished Closeout

Call for pricing on quantities over 100 – we carry major manufacturers. **We will special order any IC – 100 Piece Minimum**

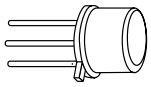
TO-3 package — 2 or 4-pin



TO-5 package — 8-pin



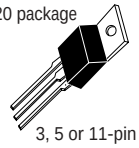
TO-39 package — 3-pin



TO-92 package — 3-pin



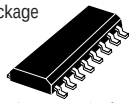
TO-220 package — 3, 5 or 11-pin



DIP package — 8, 10, 14, 16, 18, 20 or 28-pin



SOIC & SOT-223 package — 8, 14 or 16-pin



Linear Series (Continued)

Package (see above)

Part No.	Cross Ref.	Pkg.	Description	1	10	100
193691	LM1488D◆	SOIC-14	Quad line driver RS232	$.29	$.25	$.22
23157	LM1488N*	DIP-14	Quad line driver RS232 (75188)	.29	.25	.22
16361	DS14C88N	DIP-14	Quad CMOS line driver (RS232)	.59	.49	.45
193703	LM1489D◆	SOIC-14	Quad line rec. (RS232)	.29	.25	.22
23181	LM1489N*	DIP-14	Quad line rec. RS232 (75189)	.29	.25	.22
16379	DS14C89N	DIP-14	Quad CMOS line rec. (RS232)	.59	.49	.45
23211	LM1496N	DIP-14	Balanced mod./demodulator (MC1496P)	.89	.79	.69
23270	LM1875T	TO-220/5	20-watt power audio amp.	2.25	1.95	1.75
23288	LM1877N-9	DIP-14	Dual power audio amp.	1.55	1.05	.85
107140	LM1881N	DIP-8	Video synchronous separator	2.75	2.49	2.25
32897	TDA2002V	TO-220/5	8-watt audio high power amp.	2.95	2.65	2.39
34278	ULN2003A*	DIP-16	Hi-volt/curr. darl. transistor array	.39	.35	.29
193826	ULN2003AD◆	SOIC-16	Hi-volt/curr. darl. transistor array	.39	.35	.29
34294	ULN2004A	DIP-16	Hi-volt/curr. darl. trans. array (XR2204CP)	.39	.35	.29
34972	XR2206	DIP-16	Monolithic function generator	3.59	3.29	2.99
34999	XR2211	DIP-14	FSK demodulator/tone decoder	1.79	1.59	1.39
192321	LM2574HVN-ADJ	DIP-8	Simple Switcher 0.5A step down volt. reg.	2.49	2.25	2.25
192330	LM2574HVN-5.0	DIP-8	Simple Switcher 0.5A step down volt. reg.	3.75	2.95	2.25
192348	LM2574HVN-12	DIP-8	Simple Switcher 0.5A step down volt. reg.	2.49	2.25	2.25
156566	LM2574N-5	DIP-8	Step-down 5-voltage regulator	2.49	2.19	1.95
192356	LM2575N-5.0	DIP-16	Simple Switcher 1A step down volt. reg.	2.49	1.85	1.65
192364	LM2575N-12	DIP-16	Simple Switcher 1A step down volt. reg.	1.99	1.79	1.59
192372	LM2576HVT-ADJ	TO-220/5	Simple Switcher 3A step down volt. reg.	5.95	4.65	3.49
192381	LM2576HVT-5.0	TO-220/5	Simple Switcher 3A step down volt. reg.	5.95	4.65	3.49
192399	LM2576HVT-12	TO-220/5	Simple Switcher 3A step down volt. reg.	5.95	4.65	3.49
192401	LM2576HVT-15	TO-220/5	Simple Switcher 3A step down volt. reg.	4.99	4.39	3.49
192410	LM2587T-ADJ	TO-220/5	Simple Switcher 5A flyback regulator	8.25	6.49	5.25
192428	LM2594N-ADJ	DIP-8	Simple Switcher pwr. conv. 150kHz 0.5A	2.79	2.49	2.19
192436	LM2594N-5.0	DIP-8	Simple Switcher pwr. conv. 150kHz 0.5A	1.95	1.75	1.59
192444	LM2595T-ADJ	TO-220/5	Simple Switcher pwr. conv. 150kHz 1A	2.49	2.19	1.99
192452	LM2595T-5.0	TO-220/5	Simple Switcher pwr. conv. 150kHz 1A	3.75	2.95	2.25
192461	LM2595T-12	TO-220/5	Simple Switcher pwr. conv. 150kHz 1A	2.55	2.29	2.29
192479	LM2675N-5.0	DIP-8	Simple Switcher pwr. conv. high eff. 1A	4.85	3.65	2.95
39571	26LS30	DIP-16	Dual diff RS422 party line Qd RS423 line driv.	2.49	2.25	1.95
39589	26LS31	DIP-16	Quad diff line driver	.79	.69	.62
39600	26LS32	DIP-16	Quad diff line receiver	.59	.44	.34
34315	ULN2803A*	DIP-18	Hi-volt. hi-curr. darl. transis. array	.69	.59	.49
23296	LM2901N	DIP-14	Quad comp.	.39	.29	.20
123625	LM2907N-8	DIP-8	Frequency to volt converter	1.95	1.45	.99
23317	LM2907N	DIP-14	Frequency to volt converter	1.75	1.45	1.09
23350	LM2917N-8	DIP-8	Frequency to volt converter	2.45	1.75	1.25
23341	LM2917N-14	DIP-14	Frequency to volt converter	2.75	2.49	2.25
107166	LM2936Z-5	TO-92	Ultra-low quiescent current 5V reg.	1.49	1.29	1.19
192487	LM2937ET-5.0	TO-220/3	0.5A low dropout regulator (5V)	1.75	1.29	.94
107182	LM2940CT-5	TO-220/3	5V low dropout reg. (max. 45Vin)	1.29	1.19	1.09
192495	LM2940CT-12	TO-220/3	12V low dropout reg. (max 45Vin)	1.75	1.25	.95
192508	LM2940CT-15	TO-220/3	15V low dropout reg. (max 45Vin)	1.65	1.19	.85
23376	LM2941T	TO-220/5	1A low dropout adjustable regulator	1.75	1.55	1.35
107238	LM3302N	DIP-14	Low pwr. low offset volt quad cmpr.	.20	.18	.16

*10 pieces included in Linear kit below ◆ Surface Mount

Linear Series IC Cabinet Kit



Get a total of 480 pieces comprised of 40 different ICs and save big! Includes 20-drawer component cabinet with drawers dividers and adhesive labels for labeling.

SAVE $57

See page 65 for kit details

Part No	Description	1	10
84988	480 pcs. Linear IC cabinet kit (40 types noted by */**)	$189.95	$169.95
130411	Refill package for 84988 (480 pcs.)	174.95	156.95

Linear Series (Continued)

Package (see above)

✳ Prepackaged: please order in increments of 10 or 100

Part No.	Cross Ref.	Pkg.	Description	1	10	100
31974	SG3524	DIP-16	Regulating pulse width modulator	$.79	$.69	$.59
126834	LM3876T	TO-220/11	40W high perf. audio amp. with mute	4.49	3.95	3.59
192516	LM3886T	TO-220/11	68W high perf. audio amp. with mute	5.19	3.95	2.95
24168	LM3900N	DIP-14	Quad amp. (CA3401)	.79	.69	.62
24230	LM3914N	DIP-18	Bar-graph display driver	2.25	2.02	1.82
24256	LM3915N	DIP-18	3 dB steps bar-graph disp. driver	1.99	1.79	1.54
24272	LM3916N	DIP-18	VU meter display driver	2.25	1.95	1.75
192524	LM3940IT-3.3	TO-220/3	1A low dropout reg. for 5V to 3.3V conv.	2.25	1.65	1.25
29356	RC4136N	DIP-14	Quad op amp (XR4136)	.89	.79	.69
29372	RC4151NB	DIP-8	Volt to freq. converter (XR4151)	1.29	1.19	1.09
27385	NE5532*	DIP-8	Dual low noise op amp	.69	.59	.49
193738	NE5532D◆	SOIC-8	Dual low noise op amp.	.45	.39	.35
27406	NE5534	DIP-8	Low noise op amp.	.79	.59	.41
193746	NE5534D◆	SOIC-8	Low noise op amp.	.32	.29	.26
192541	LMC6032IN	DIP-8	CMOS dual op amp.	1.05	.75	.55
51182	78L05**	TO-92	5V 100mA pos. voltage regulator	✳	.27	.24
193754	78L05ACM◆	SOIC-8	5V 100mA pos. voltage regulator	.29	.25	.22
193762	78L06ACM◆	SOIC-8	6.2V 100mA pos. voltage regulator	.35	.29	.25
192225	78L09	TO-92	9V 100mA pos. voltage regulator	.25	.23	.20
51203	78L12*	TO-92	12V 100mA pos. voltage regulator	✳	.26	.23
193771	78L12ACM◆	SOIC-8	12V 100mA pos. voltage regulator	.25	.22	.19
194642	78L15	TO-92	15V 100mA pos. voltage regulator	.25	.23	.20
193789	78L15ACM◆	SOIC-8	15V 100mA pos. voltage regulator	.25	.22	.19
194651	78L18	TO-92	18V 100mA pos. voltage regulator	.29	.23	.23
194669	78L24	TO-92	24V 100mA pos. voltage regulator	.29	.26	.23
192233	78M05	TO-220/3	5V 500mA pos. voltage regulator	.27	.24	.21
192241	78M12	TO-220/3	12V 500mA pos. voltage regulator	.35	.32	.28
192250	78M15	TO-220/3	15V 500mA pos. voltage regulator	.27	.24	.21
51246	7805K	TO-3/2	5V 1A pos. voltage reg. (LM340K-5)	1.49	1.39	1.29
51318	7812K	TO-3/2	12V 1A pos. voltage reg. (LM340K-12)	1.49	1.39	1.29
51369	7815K	TO-3/2	15V 1A pos. voltage reg. (LM340K-15)	1.19	.83	.54
51262	7805T**	TO-220/3	5V 1A pos. voltage reg. (LM340T-5)	.35	.32	.28
51297	7806T	TO-220/3	6V 1A pos. voltage reg. (LM340T-6)	.35	.31	.27
51300	7808T*	TO-220/3	8V 1A pos. voltage regulator	.35	.31	.27
51334	7812T**	TO-220/3	12V 1A pos. voltage regulator	.35	.31	.27
51377	7815T*	TO-220/3	15V 1A pos. voltage regulator	.35	.31	.27
194634	7818CT	TO-220/3	18V 1A pos. voltage regulator	.35	.31	.27
51414	7824T	TO-220/3	24V 1A pos. voltage regulator	.30	.27	.24
51238	78S40	DIP-16	1.25V-40V 1.5A switching regulator	1.75	1.55	1.15
51422	79L05	TO-92	5V 100mA neg. voltage regulator	.25	.22	.19
193797	79L05ACM◆	SOIC-8	5V 100mA neg. voltage regulator	.35	.29	.25
194731	79L08	TO-92	8V 100mA neg. voltage regulator	✳	.16	.14
51431	79L12	TO-92	12V 100mA neg. voltage regulator	.28	.25	.23
194749	79L15	TO-92	15V 100mA neg. voltage regulator	.25	.22	.19
193800	79L12ACM◆	SOIC-8	12V 100mA neg. voltage regulator	.35	.29	.25
193818	79L15ACM◆	SOIC-8	15V 100mA neg. voltage regulator	.29	.25	.22
194757	79L18	TO-92	18V 100mA neg. voltage regulator	✳	.15	.13
194765	79L24	TO-92	24V 100mA neg. voltage regulator	✳	.15	.13
51457	7905T*	TO-220/3	5V 1A neg. voltage regulator	.39	.35	.29

*10 pieces in Linear kit, left **20 pieces in Linear kit, left ◆ Surface Mount

Stand-Alone Linear IC Tester

Identify and test op amps, comparators, optocouplers, transistor arrays, analog switches & voltage regulators.

- Tests 8 to 24-pin devices
- Auto feature lists type and device number

Includes: 9VDC adapter



For more Programmers/ Testers see pages 94 - 95

Part No.	Description	1	10
130147	Linear IC tester	$649.95	$584.95

Call for pricing on quantities over 100 – we carry major manufacturers. **We will special order any IC – 100 Piece Minimum**

Linear Series (Continued)

Package (See page 12)

Part No.	Cross Ref.	Pkg.	Description	1	10	100
194685	7908	TO-220/3	8V 1A neg. voltage regulator	$.25	$.22	$.19
51481	7912T*	TO-220/3	12V 1A neg. voltage regulator	.39	.35	.29
51502	7915T*	TO-220/3	15V 1A neg. voltage regulator	.39	.35	.29
194714	7918CT	TO-220/3	18V 1A neg. voltage regulator	.49	.44	.39
51879	8038CCPD	DIP-14	Precision wave form generator	3.49	3.25	2.95
50884	75154	DIP-16	Quad line receiver	.79	.72	.64
50930	75173	DIP-16	Quadruple differ. line receiver	1.95	1.75	1.55
50948	75174	DIP-16	Quad diff. RS422 line driver w/ 3-state out	1.09	.99	.89
50956	75175	DIP-16	Quad diff. EIA 422A/423A line rec.w/3-st.out	1.09	.99	.89
50964	75176	DIP-8	Differential bus transceiver	.89	.81	.69
23157	75188	DIP-14	Quad line driver RS232 (LM1488N)	.29	.25	.22
23181	75189	DIP-14	Quad line rec. RS232 (LM1489N)	.29	.25	.22
51027	75451	DIP-8	Dual peripheral AND driver	.49	.44	.39
51035	75452	DIP-8	Dual peripheral NAND driver	.45	.39	.35
51131	75492	DIP-14	Hex digit driver (492)	6.95	6.25	5.95

*10 pieces included in Linear kit on page 12

Analog Devices

Dual-In-Line

Part No.	Product No.	Pins	Description	1	10	50
115158	AD558JN	16	Microprocessor compat. 8-bit DAC	$17.95	$12.75	$12.11
115174	AD620AN	8	Low cost instrument amplifier	17.95	15.95	14.35
115182	AD633JN	8	Low cost analog multiplier	12.95	9.69	7.69
115318	OP27GP	8	Low noise prec. op amp (-40˚C to 80˚C)	1.95	1.75	1.59

MAXIM Type Interface Series

Dual-In-Line

Part No.	Cross Ref.	Pins	Description	1	10	100
142535	MAX202CPE	16	+5V RS232 trans. requires 0.1µF caps	$2.49	$2.25	$2.05
24811	MAX232CPE	16	+5V powered, dual RS232 transmitter/ receiver (0°C to +70°C) SP232ACP	1.95	1.75	1.57
106147	MAX232CWE✦	16	+5V powered, dual RS232 (SOIC) trans./rcvr.	1.95	1.75	1.59
106155	MAX232EPE	16	+5V powered, dual RS232 transmitter/receiver (-40°C to +85°C)	2.49	2.25	2.05
106163	MAX233CPP	20	+5V powered, multichannel RS232 drivers/receivers (no ext. components)	5.75	5.18	4.66
106171	MAX235CPG	24	+5V powered, five RS232 transmitter/ receiver (no ext. components)	9.95	8.95	8.05
106180	MAX238CNG	24	+5V powered, quad RS232 transmitter and receiver	5.25	4.70	3.59
106219	MAX690CPA	8	Microprocessor watchdog/battery switchover/reset generator	4.99	4.49	3.25
106227	MAX691CPE	16	Microprocessor watchdog/battery switchover/reset generator	6.25	4.69	3.25
106260	MAX1232CPA	8	Microprocessor monitor	2.49	2.25	2.05

RCA Type Linear Series

Dual-In-Line

Part No.	Cross Ref.	Pins	Description	1	10	100
12079	CA3046N	14	NPN transistor array (ULN2046)	$.49	$.44	$.39
12116	CA3080E	8	Op transconductance amp. (100135)	.65	.52	.37
12124	CA3081N	16	Common emitter NPN array (ULN2081)	.69	.59	.54
12159	CA3086N	14	Transistor array NPN (ULN2086)	.49	.45	.39
12183	CA3130E	8	CMOS op amp.	1.19	1.09	.99
12204	CA3140E	8	Bi-MOS op amp.	.79	.59	.42
12239	CA3161E	16	BCD to 7-seg. decoder driver	2.19	1.95	1.75
12247	CA3162E	16	Dual slope & rate analog/digital convert	6.95	6.25	5.65
24168	CA3401N	14	Quad amp (LM3900N) (221-235)	.79	.69	.62

7400 Series

Dual-In-Line

Part No.	Cross Ref.	Pins	Description	1	10	100
48979	7400**	14	Quad 2-input NAND gate	$.69	$.62	$.45
49007	7401	14	Quad 2-input NAND gate (O.C.)	.49	.45	.39
49015	7402*	14	Quad 2-input NOR gate	.59	.49	.45
49040	7404**	14	Hex inverter	.59	.49	.45
49074	7405*	14	Hex inverter (O.C.)	.39	.33	.29
49091	7406**	14	Hex inverter buffer/driver (O.C.)	.45	.34	.28
49120	7407**	14	Hex buffer/driver (O.C.)	.59	.49	.45

7400 Series (Continued)

Dual-In-Line

Part No.	Cross Ref.	Pins	Description	1	10	100
49146	7408*	14	Quad 2-input AND gate	$.69	$.59	$.48
49189	7410*	14	Triple 3-input NAND gate	.25	.20	.15
49269	7411	14	Triple 3-input AND gate	3.95	3.59	3.25
49402	7413	14	Dual 4-input NAND gate Schmitt trigger	.89	.79	.72
49437	7414*	14	Hex inverter Schmitt trigger	.59	.49	.45
49630	7416*	14	Hex inverter buffer/driver (O.C.)	.69	.52	.39
49728	7417*	14	Hex buffer/driver (O.C. hi-voltage)	.79	.59	.41
50008	7420*	14	Dual 4-input NAND gate	.49	.45	.39
50083	7425	14	Dual 4-input NOR gate with strobe	.89	.79	.69
50139	7427	14	Triple 3-input NOR gate	.49	.37	.26
50198	7428	14	Quad 2-input NOR buffer	.49	.43	.39
50227	7430*	14	8-input NAND gate	.29	.22	.16
50235	7432*	14	Quad 2-input OR gate	.59	.49	.45
50315	7438*	14	Quad 2-input NAND buffer (O.C.)	.35	.25	.19
50358	7440	14	Dual 4-input NAND buffer	.31	.27	.25
50374	7442	16	BCD-to-decimal decoder	.89	.79	.69
50403	7445	16	BCD-to-decimal decoder/driver (30V)	.89	.79	.69
50411	7446	16	BCD-to-7 segment decoder/driver (30V)	1.29	1.19	1.09
50420	7447*	16	BCD-to-7 segment decoder/driver (15V)	1.25	1.12	.99
50518	7470*	14	Edge-triggered JK flip-flop	.89	.79	.72
50526	7472	14	AND gated JK master/slave flip-flop	.99	.75	.53
50534	7473	14	Dual JK flip-flop with clear	.99	.89	.79
50551	7474**	14	Dual D flip-flop	.55	.47	.35
50577	7475	16	4-bit bi-stable latch	2.95	2.75	2.49
50593	7476	16	Dual JK flip-flop with preset and clear	1.19	1.09	.99
50631	7483	16	4-bit binary full adder	.89	.79	.69
50657	7485*	16	4-bit magnitude comp.	.39	.29	.22
50665	7486	14	Quad EXCLUSIVE-OR gate	.79	.69	.59
50681	7489	16	64-bit RAM P 50ns	3.49	3.19	2.99
50690	7490	14	Decade counter	1.29	1.19	1.09
50737	7492	14	Divide-by-12 counter	1.49	1.35	1.19
50745	7493	14	4-bit binary counter	1.49	1.34	1.19
50770	7495*	14	4-bit parallel-access shift register (K155N)	.69	.59	.39
50788	7496	16	5-bit parallel-in, parallel-out shift register	.21	.19	.17
50796	7497	16	Synch. 6-bit binary rate multipliers	1.39	1.04	.73
49234	74107*	14	Dual JK flip-flop with clear	.39	.29	.19
49293	74116	24	Dual 4-bit latches with clear	.99	.74	.52
49322	74121	14	Monostable multivibrator	.99	.89	.79
49349	74122	14	Retriggerable mono. multivibrator with clear	.79	.71	.64
49357	74123*	16	Dual retriggerable mono. multivibrator	.89	.79	.69
49373	74125	14	Quad bus buffer tri-state (DM8093N)	.89	.79	.69
49381	74126	14	Quad bus buffer tri-state (DM8094N)	.69	.52	.36
49411	74132*	14	Quad 2-input NAND Schmitt trigger	.89	.79	.69
49496	74148	16	8 to 3 line octal priority encoder	.89	.79	.69
49509	74150	24	16 to 1 line multiplexer	1.95	1.75	1.55
49525	74151*	16	8-input multiplexer	.29	.22	.15
49550	74153*	16	Dual 4/1 data selector/multiplexer	.28	.26	.23
49568	74154	24	4 to 16 line decoder/demultiplexer	2.25	1.95	1.75
49605	74157*	16	Quad 2/1 data selector	.34	.31	.28
49648	74160*	16	Decade counter with asynch. clear	.29	.22	.15
49664	74161	16	Synchronous 4-bit counter	.39	.35	.31
49672	74163	16	Synchronous 4-bit counter	.45	.34	.32
49681	74164	14	8-bit serial shift register	.42	.38	.34
49699	74165	16	8-bit serial shift register, parallel load	.59	.53	.48
49779	74174*	16	Hex D-type flip-flop with clear	.59	.44	.31
49795	74175*	16	Quad D-type flip-flop with clear	.49	.37	.25

*10 pieces included in 7400 kit below **20 pieces included in 7400 kit below ✦ Surface Mount

7400 Series IC Cabinet Kit



Get a total of 350 pieces comprised of 30 different ICs and save big! Includes 20-drawer component cabinet with drawers dividers and adhesive labels for labeling.

SAVE $46

See page 65 for kit details

Part No.	Description	1	10
84953	350 pcs. 7400 series IC cabinet kit (30 types noted by */**)	$139.95	$125.95

Surface Mount

Part Number Color Code: New Sale Refurbished Closeout

Call for pricing on quantities over 100 – we carry major manufacturers. We will special order any IC – 100 Piece Minimum

7400 Series (Continued)

Dual-In-Line

Part No.	Cross Ref.	Pins	Description	1	10	100
49824	74179	16	4-bit parallel-access shift register	$*	$.08	$.07
49832	74180	14	9-bit odd/even parity generator/checker	1.99	1.79	1.59
49841	74181	24	Arithmetic logic unit/function generator	1.95	1.75	1.55
49883	74189	16	64-bit RAM tri-state (DM8599N)	3.59	2.69	1.89
49904	74191	16	Binary up/down counter	1.18	.89	.62
49912	74192	16	Decade up/down counter with clear	3.95	3.59	3.25
49939	74193	16	Binary up/down counter with clear	1.39	1.19	1.09
49955	74194	16	4-bit bi-directional shift register	1.25	1.09	.99
49963	74195	16	4-bit parallel-access shift register	1.95	1.75	1.59
50104	74259	16	8-bit addressable latch (9334)	.33	.30	.27
50171	74279*	16	Quad set-reset latch	1.25	1.12	.99
88225	SDLD001A	—	Texas Instruments TTL Data Book	34.95	31.49	29.95

*10 pieces included in 7400 kit on page 13

74C Series

Dual-In-Line

Part No.	Cross Ref.	Pins	Description	1	10	100
44222	74C00	14	Quad 2-input NAND gate	$.59	$.44	$.31
63538	74C02	14	Quad 2-input NOR gate	1.09	.99	.89
44231	74C04	14	Hex inverter (CD4069)	.74	.52	.48
44257	74C14	14	Hex inverter Schmitt trigger (CD40106)	.39	.35	.31
44441	74C74	14	Dual D flip-flop	1.55	1.39	1.15
44361	74C221	16	Dual monostable multivibrator	3.95	3.59	3.25
13469	74C367	16	Hex buffer tri-state (80C97/CD4503)	.49	.45	.39
44396	74C373	20	Octal D-type flip-flop with clear tri-state	3.75	3.25	2.49
44409	74C374	20	Octal D-type flip-flop tri-state (INS82C06N)	1.49	1.25	1.15
44564	74C922	18	16-key keyboard encoder (INS8245N)	6.75	5.95	4.95
44572	74C923	20	20-key keyboard encoder (INS8246N)	6.75	5.45	4.59
44581	74C925	16	4-digit CTR with MUX D segment driver	6.75	5.95	5.35
44599	74C926	18	4-digit CTR with MUX D segment driver	6.95	6.25	5.65

74LS Series

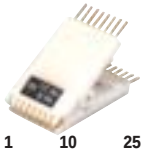
SOIC Dual-In-Line

Part No.	Cross Ref.	Pins	Description	1	10	100
46252	74LS00**	14	Quad 2-input NAND gate	$.31	$.28	$.24
198361	74LS00M◆	SOIC-14	Quad 2-input NAND gate	.49	.35	.32
46287	74LS02**	14	Quad 2-input NOR gate	.25	.22	.19
198379	74LS02M◆	SOIC-14	Quad 2-input NOR gate	.49	.35	.32
46308	74LS03	14	Quad 2-input NAND gate (O.C.)	.32	.29	.25
46316	74LS04**	14	Hex inverter	.29	.26	.23
198387	74LS04M◆	SOIC-14	Hex inverter	.49	.35	.32
46341	74LS05*	14	Hex inverter (O.C.)	.29	.25	.22
198395	74LS05M◆	SOIC-14	Hex inverter (O.C.)	.49	.35	.32
46359	74LS06	14	Hex inverter buffer/driver (O.C.)	.49	.45	.39
46367	74LS07	14	Hex buffer/driver (O.C. hi-voltage)	.99	.89	.79
198408	74LS07M◆	SOIC-14	Hex buffer/driver (O.C. hi-voltage)	.85	.70	.55
46375	74LS08**	14	Quad 2-input AND gate	.36	.31	.29
198416	74LS08M◆	SOIC-14	Quad 2-input AND gate	.49	.35	.32
46391	74LS09	14	Quad 2-input AND gate (O.C.)	.25	.19	.15
46404	74LS10*	14	Triple 3-input NAND gate	.29	.26	.23
198424	74LS10M◆	SOIC-14	Triple 3-input NAND gate	.49	.35	.32
46439	74LS11*	14	Triple 3-input AND gate	.29	.25	.22
198432	74LS11M◆	SOIC-14	Triple 3-input AND gate	.49	.35	.32
46640	74LS14*	14	Hex inverter Schmitt trigger	.25	.22	.19
198441	74LS14M◆	SOIC-14	Hex inverter Schmitt trigger	.45	.35	.25
47095	74LS20*	14	Dual 4-input NAND gate	.29	.22	.20

*10 pieces in 74LS kit, right **20 pieces in 74LS kit, right ◆ Surface Mount

IC Test Clip Series

- For temporary connections to DIP package components
- Heavy-duty spring loaded hinge provides positive contact
- 20 AWG insulated gold contacts
- Color: white



Part No.	Cross Ref.	Description	1	10	25
22103	JTC16	16-pin (for 8, 14 and 16-pin ICs)	$6.95	$6.25	$5.59
22120	JTC20	20-pin (for 18 and 20-pin ICs)	8.95	6.50	5.35
22162	JTC28	28-pin	10.95	9.95	8.95
22189	JTC40	40-pin	12.95	11.95	10.95

74LS Series (Continued)

SOIC Dual-In-Line

Part No.	Cross Ref.	Pins	Description	1	10	100
198459	74LS20M◆	SOIC-14	Dual 4-input NAND gate	$.49	$.35	$.32
47108	74LS21	14	Dual 4-input AND gate	.29	.22	.20
47378	74LS27	14	Triple 3-input NOR gate	.25	.17	.14
47458	74LS30*	14	8-input NAND gate	.29	.22	.20
198467	74LS30M◆	SOIC-14	8-input NAND gate	.49	.35	.32
47466	74LS32**	14	Quad 2-input OR gate	.29	.26	.23
198475	74LS32M◆	SOIC-14	Quad 2-input OR gate	.49	.35	.32
47597	74LS37	14	Quad 2-input NAND gate buffer	.39	.35	.29
47693	74LS38	14	Quad 2-input NAND gate buffer (O.C.)	.34	.26	.18
47773	74LS42	16	BCD-to-decimal decoder/driver	.69	.59	.49
47790	74LS47*	16	BCD to 7-seg. decoder/driver (O.C.)	.99	.89	.79
198483	74LS47M◆	SOIC-16	BCD to 7-seg. decoder/driver (O.C.)	.65	.45	.35
47811	74LS48	16	BCD to 7-seg. decoder/driver	4.95	4.50	3.99
47992	74LS73*	14	Dual JK flip-flop with clear	.49	.45	.39
48004	74LS74**	14	Dual D flip-flop	.29	.25	.22
198491	74LS74M◆	SOIC-14	Dual D flip-flop	.45	.35	.25
48021	74LS75*	16	4-bit bi-stable latch	.55	.45	.39
198504	74LS75M◆	SOIC-16	4-bit bi-stable latch	.45	.35	.25
48039	74LS76	16	Dual JK flip-flop with preset and clear	.69	.62	.55
48063	74LS83	16	4-bit binary full adder	.45	.39	.35
48071	74LS85*	16	4-bit magnitude comparator	.35	.29	.25
198512	74LS85M◆	SOIC-16	4-bit magnitude comparator	.45	.35	.25
48098	74LS86*	14	Quad EXCLUSIVE-OR gate	.35	.31	.27
198521	74LS86M◆	SOIC-14	Quad EXCLUSIVE-OR gate	.45	.35	.25
48119	74LS90*	14	Decade counter	.49	.45	.39
198539	74LS90M◆	SOIC-14	Decade counter	.65	.45	.35
48143	74LS92	14	Divide-by-12 counter	.45	.39	.35
48151	74LS93*	14	4-bit binary counter	.75	.63	.56
198547	74LS93M◆	SOIC-14	4-bit binary counter	1.29	.99	.79
48178	74LS95	14	4-bit parallel-access shift register	.89	.79	.69
46412	74LS107	14	Dual JK flip-flop with clear	.25	.22	.19
46421	74LS109	16	Dual JK pos. edge-trig. flip-flop	.25	.22	.19
46447	74LS112	16	Dual JK neg. edge-trig. flip-flop	.25	.22	.19
46471	74LS122	14	Retrig. mono. multivibrator comm. CLK	.39	.35	.29
46480	74LS123*	16	Dual mono. multivibrator with clear	.35	.29	.25
198555	74LS123M◆	SOIC-16	Dual mono. multivibrator with clear	.55	.40	.30
46501	74LS125*	14	Quad bus buffer neg. enable tri-state	.39	.29	.21
46527	74LS126	14	Quad bus buffer tri-state	.35	.26	.18
46551	74LS132	14	Quad 2-input NAND Schmitt trigger	.35	.29	.25
46586	74LS136	14	Quad EXCLUSIVE-OR gate (O.C.)	.35	.29	.15
46607	74LS138**	16	3 to 8 decoder/demultiplexer	.35	.31	.27
198563	74LS138M◆	SOIC-16	3 to 8 decoder/demultiplexer	.65	.45	.40
46623	74LS139*	16	2 to 4 decoder/demultiplexer	.36	.27	.19
46666	74LS145	16	BCD-to-decimal decoder/driver	.49	.45	.39
46674	74LS147	16	10 to 4 priority encoder	.99	.89	.79
46682	74LS148	16	8 to 3 priority encoder	.79	.69	.56
46703	74LS151*	16	8-input multiplexer	.35	.31	.27
198571	74LS151M◆	SOIC-16	8-input multiplexer	.65	.45	.40
46720	74LS153	16	Dual 4-to-1 selector/multiplexer	.29	.25	.22
46738	74LS154	24	4 to 16 line decoder/demultiplexer	2.29	2.06	1.85
46754	74LS155*	16	Dual 2/4 demultiplexer	.39	.35	.32
46762	74LS156	16	Dual 2/4 demultiplexer (O.C.)	.26	.23	.20
46771	74LS157*	16	Quad 2/1 data selector	.29	.25	.22
198580	74LS157M◆	SOIC-16	Quad 2/1 data selector	.65	.45	.40
46800	74LS160	16	Decade counter with asynch. clear	.89	.79	.69
46818	74LS161	16	Synch 4-bit counter (733W01729L1)	.35	.29	.25

*10 pieces in 74LS kit below **20 pieces in 74LS kit below ◆ Surface Mount

74LS Series IC Cabinet Kit

SAVE $43



Get a total of 420 pieces comprised of 35 different ICs and save big! Includes 20-drawer component cabinet with drawers dividers and adhesive labels for labeling.

See page 65 for kit details

Part No.	Description	1	10
84961	420 pc. 74LS series IC cabinet kit (35 types noted by */**)	$109.95	$99.95
130391	Refill package for 84961 kit (420 pcs.)	94.95	85.95

Call for pricing on quantities over 100 – we carry major manufacturers. We will special order any IC – 100 Piece Minimum

74LS Series (Continued)

SOIC Dual-In-Line

Part No.	Cross Ref.	Pins	Description	1	10	100
46842	74LS163	16	Fully synch. 4-bit counter	$.39	$.35	$.31
46851	74LS164	14	8-bit serial shift register	.35	.29	.25
46877	74LS165	16	8-bit serial shift register, parallel load	.49	.45	.39
46885	74LS166	16	8-bit shift register, parallel load	.35	.25	.20
46906	74LS169	16	Synch. binary up/down counter	.59	.43	.33
46922	74LS173	16	4-bit D-type reg. tri-state	.39	.35	.29
46931	74LS174*	16	Hex D flip-flop with clear	.29	.25	.17
46957	74LS175*	16	Quad D flip-flop with clear	.35	.31	.27
46973	74LS181	24	Arithmetic logic unit/function generator	1.09	.99	.89
46990	74LS190	16	Synchronous up/down counter	1.49	1.34	1.19
47001	74LS191	16	Up/down binary counter	.39	.35	.29
47010	74LS192	16	Decade up/down counter with clear	3.95	3.59	3.25
47036	74LS193*	16	Binary up/down counter with clear	.59	.49	.45
198598	74LS193M◆	SOIC-16	Binary up/down counter with clear	.85	.70	.55
47052	74LS194	16	4-bit bi-directional shift register	.59	.49	.45
198601	74LS194M◆	SOIC-16	4-bit bi-directional shift register	1.15	.79	.69
47061	74LS195	16	4-bit parallel-access shift register	.35	.26	.18
47124	74LS221	16	Dual mono. multivibrator Schmitt trigger	.39	.35	.29
47141	74LS240*	20	Octal invert. line driver tri-state	.44	.33	.23
198619	74LS240M◆	SOIC-20	Octal invert. line driver tri-state	.79	.59	.49
47167	74LS241	20	Octal bus/line driver tri-state	.39	.29	.19
47175	74LS243	14	Quad transceiver tri-state	.22	.20	.18
47183	74LS244*	20	Octal driver tri-state	.44	.39	.35
198627	74LS244M◆	SOIC-20	Octal driver tri-state	.69	.52	.39
47212	74LS245*	20	Octal bus transceiver tri-state	.45	.39	.35
198635	74LS245M◆	SOIC-20	Octal bus transceiver tri-state	.69	.51	.39
47247	74LS247	16	BCD to 7-segment decoder/driver (O.C.)	.79	.69	.49
47271	74LS251	16	8-channel multiplexer tri-state	.42	.30	.24
47298	74LS257	16	Quad 2-input multiplexer tri-state	.21	.19	.17
47327	74LS259	16	8-bit addressable latch	.39	.35	.29
47360	74LS266	14	Quad EXCLUSIVE-NOR gate (O.C.)	.35	.29	.25
47386	74LS273*	20	Octal D-type flip-flop with clear	.45	.39	.35
198643	74LS273M◆	SOIC-20	Octal D-type flip-flop with clear	.69	.52	.39
47407	74LS279	16	Quad set-reset latches	.34	.26	.18
47415	74LS280	14	9-bit odd/even parity generator/checker	.38	.34	.30
47423	74LS283	16	4-bit binary full add with fast carry	.49	.45	.36
47440	74LS299	20	8-bit universal shift/storage register	1.19	1.07	.99
47546	74LS365	16	Hex buffer with logical OR tri-state	.69	.52	.36
47554	74LS366	14	Hex buffer/inverter tri-state	.12	.11	.10
47562	74LS367	16	Hex buffer tri-state	.29	.25	.22
47600	74LS373*	20	Octal D flip-flop tri-state	.45	.39	.35
198651	74LS373M◆	SOIC-20	Octal D flip-flop tri-state	.49	.46	.44
47634	74LS374*	20	Octal D F/F edge-trig tri-state	.45	.39	.34
198660	74LS374M◆	SOIC-20	Octal D F/F edge-trig tri-state	.69	.52	.39
47669	74LS377	20	Octal D register common enable	.47	.36	.30
47722	74LS390	16	Dual 4-bit decade counter	.39	.35	.29
47731	74LS393	14	Dual 4-bit binary counter	.45	.39	.35
171803	74LS491	24	10-bit up/down counter	6.95	5.21	3.65
47861	74LS540	20	Octal invert. buffer/line driver tri-state	.49	.45	.39
47870	74LS541	20	Octal buffer/line driver tri-state	.69	.59	.49
64418	74LS573	20	Octal D-type F/F latch tri-state	1.49	1.35	1.19
64426	74LS574	20	Octal D-type F/F edge-trig. tri-state	1.29	1.19	1.09
47909	74LS590	16	8-bit binary counter without reg. tri-state	4.99	4.49	3.99
103974	74LS595	16	8-bit serial-to-parallel shift reg. tri-state	4.49	3.50	2.94
47950	74LS645	20	Octal bus transceiver tri-state	1.69	1.49	1.39
47984	74LS688	20	8-bit magnitude comparator	1.09	.89	.69

*10 pieces included in 74LS kit, left ◆ Surface Mount

Call us with your 100 piece minimum order

We'll Find Any IC!

1-800-831-4242

74S Series

Dual-In-Line

Part No.	Cross Ref.	Pins	Description	1	10	100
48944	74S74	14	Dual D flip-flop	$.15	$.13	$.12
48531	74S188	16	256-bit (32 x 8) PROM O.C. (27S18)	5.95	5.39	4.85
48557	74S189	16	64-bit (16 x 4) RAM tri-state (27S03)	3.95	3.49	3.15
48696	74S287	16	1k-bit (256 x 4) PROM tri-state (TBP24S10)	6.95	6.25	5.65
48717	74S288	16	256-bit (32 x 8) PROM tri-state (TBP18S030N)	4.95	4.49	4.05
48805	74S387	16	1k-bit (256 x 4) PROM O.C. (TBP24SA10N)	4.15	3.69	3.51
52513	74S428	28	System contr./bus driver (8228)	2.95	2.19	1.55
48864	74S472	20	4k-bit (512 x 8) PROM tri-state (TBP28S42N)	8.95	7.95	6.95
48910	74S571	16	2k-bit (512 x 4) PROM tri-state (AM27S13)	6.49	6.25	5.63
48928	74S573	18	4k-bit (1024 x 4) PROM tri-state (53S441J)	3.05	2.73	2.46

74HC Series

SOIC Dual-In-Line

Part No.	Cross Ref.	Pins	Description	1	10	100
45161	74HC00	14	Quad 2-input NAND gate (6231581)	$.25	$.22	$.19
197106	74HC00M◆	SOIC-14	Quad 2-input NAND gate	.32	.26	.23
45188	74HC02	14	Quad 2-input NOR gate	.19	.17	.14
197114	74HC02M◆	SOIC-14	Quad 2-input NOR gate	✳	.17	.17
45209	74HC04	14	Hex inverter (buffered)	.25	.22	.19
197122	74HC04M◆	SOIC-14	Hex inverter (buffered)	.32	.26	.23
45225	74HC08	14	Quad 2-input AND gate	.19	.17	.15
197131	74HC08M◆	SOIC-14	Quad 2-input AND gate	.32	.26	.23
45233	74HC10	14	Triple 3-input NAND gate	.29	.22	.19
45268	74HC11	14	Triple 3-input AND gate	.18	.16	.14
45364	74HC14	14	Hex inverter Schmitt trigger	.29	.26	.23
197149	74HC14M◆	SOIC-14	Hex inverter Schmitt trigger	.32	.26	.23
45786	74HC30	14	8-input NAND gate	.29	.26	.23
45794	74HC32	14	Quad 2-input OR gate	.22	.19	.16
197157	74HC32M◆	SOIC-14	Quad 2-input OR gate	.32	.26	.23
46130	74HC74	14	Dual D flip-flop	.35	.32	.29
197165	74HC74M◆	SOIC-14	Dual D flip-flop	.38	.29	.26
46172	74HC85	16	4-bit magnitude comparator	.49	.45	.39
46181	74HC86	14	Quad EXCLUSIVE-OR gate	.39	.28	.21
45292	74HC123	16	Dual retrig. monostable multivibrator	.35	.25	.20
45305	74HC125	14	Quad bus buffer tri-state	.39	.35	.29
45321	74HC132	14	Quad 2-input NAND Schmitt trigger	.35	.31	.24
45330	74HC138	16	3-to-8 decoder/demultiplexer	.35	.29	.25
197173	74HC138M◆	SOIC-16	3-to-8 decoder/demultiplexer	.46	.38	.28
45356	74HC139	16	2-to-4 decoder/demultiplexer	.35	.29	.25
45401	74HC154	24	4/16 line decoder (.3"W)	1.19	1.09	.99
111739	74HC154W	24	4/16 line decoder (.6"W)	1.49	1.35	1.09
45428	74HC157	16	Quad 2-input multiplexer	.39	.35	.28
45452	74HC161	16	Synchronous 4-bit counter	.39	.29	.27
45479	74HC163	16	Synchronous 4-bit counter	.49	.45	.40
45487	74HC164	14	8-bit serial shift register	.39	.35	.29
197181	74HC164M◆	SOIC-14	8-bit serial shift register	.48	.45	.40
45495	74HC165	16	Parallel load 8-bit serial shift register	.35	.29	.25
197190	74HC165M◆	SOIC-16	Parallel load 8-bit serial shift register	.48	.45	.40
45508	74HC174	16	Hex D flip-flop with clear	.49	.44	.40
45541	74HC192	16	Decade up/down counter with clear	1.59	1.49	1.39
45559	74HC193	16	Binary up/down counter with clear	.79	.59	.41
45604	74HC221	16	Dual mono. multivibrator Schmitt trigger	.55	.41	.29
45612	74HC240	20	Octal inverting line driver tri-state	.49	.45	.39
45655	74HC244	20	Octal driver tri-state	.45	.39	.29
197202	74HC244M◆	SOIC-20	Octal driver tri-state	.60	.44	.34
45671	74HC245	20	Octal transceiver tri-state	.45	.34	.24
197211	74HC245M◆	SOIC-20	Octal transceiver tri-state	.60	.44	.34
45743	74HC273	20	Octal D-type flip-flop with clear	.69	.59	.49
45831	74HC373	20	Octal D-type flip-flop tri-state	.45	.39	.35
197229	74HC373M◆	SOIC-20	Octal D-type flip-flop tri-state	.60	.44	.34
45858	74HC374	20	Octal D-type flip-flop edge-trig tri-state	.49	.39	.29
197237	74HC374M◆	SOIC-20	Octal D-type flip-flop edge-trig tri-state	.60	.44	.34
45874	74HC393	14	Dual 4-bit binary counter	.59	.44	.29
109760	74HC540	20	Octal invert. buffer/line driver tri-state	.65	.49	.36
46050	74HC541	20	Octal buffer/line driver tri-state	.69	.55	.35
46076	74HC573	20	Octal D-type flip-flop tri-state	.69	.55	.35

✳ Prepackaged: please order in increments of 10, 100 or 1000

Surface Mount

Part Number Color Code: New Sale Refurbished Closeout

Call for pricing on quantities over 100 – we carry major manufacturers. **We will special order any IC – 100 Piece Minimum**

74HC Series (Continued)

Dual-In-Line

Part No.	Cross Ref.	Pins	Description	1	10	100
197245	74HC573M◆	SOIC-20	Octal D-type flip-flop tri-state	$.65	$.50	$.35
46084	74HC574	20	Octal D-type flip-flop tri-state	.59	.44	.31
197253	74HC574M◆	SOIC-20	Octal D-type flip-flop tri-state	.65	.48	.35
88090	74HC590	16	8-bit binary counter w/ output reg. tri-state	.89	.67	.47
46105	74HC595	16	8-bit serial-to-parallel shift reg. tri-state	.79	.69	.45
46113	74HC688	20	8-bit mag. comparator	.69	.49	.39
45891	74HC4017	16	Decade ctr./div. with 10 decoded outputs	.59	.53	.48
45903	74HC4020	16	14-stage binary counter	.59	.45	.34
45920	74HC4040	16	12-stage binary counter	.69	.49	.41
45938	74HC4046	16	CMOS phase lock loop	.56	.42	.29
45954	74HC4050	16	Hex buffer/converter	.49	.45	.45
88102	74HC4051	16	Single 8-channel multi/demultiplexer	.59	.44	.31
45962	74HC4060	16	14-stage binary counter	.59	.44	.31
45971	74HC4066	14	Quad analog switch	.55	.41	.35
46009	74HC4514	S-24	4/16-line decoder with latch (.3"W)	1.95	1.75	1.55
46017	74HC4538	16	Dual retrig. mono. multivibrator	.59	.44	.31

74HCT Series

Dual-In-Line

Part No.	Cross Ref.	Pins	Description	1	10	100
44871	74HCT00	14	Quad 2-input NAND gate (Y560820T)	$.29	$.25	$.19
44898	74HCT04	14	Hex inverter	.29	.22	.16
44901	74HCT08	14	Quad 2-input AND gate	.25	.19	.12
44935	74HCT14	14	Hex inverter Schmitt trigger	.39	.35	.29
45057	74HCT32	14	Quad 2-input OR gate	.34	.26	.18
45137	74HCT74	14	Dual D flip-flop	.33	.25	.18
44927	74HCT138	16	3-to-8 decoder/demultiplexer	.29	.25	.22
63773	74HCT139	16	2-to-4 decoder/demultiplexer	.29	.25	.22
88057	74HCT154	24	4-to-16 decoder/demultiplexer	1.59	1.49	1.39
45014	74HCT240	20	Octal inverting line driver tri-state	.49	.37	.26
45022	74HCT244	20	Octal driver tri-state	.39	.29	.19
45031	74HCT245	20	Octal transceiver tri-state	.45	.33	.23
45049	74HCT273	20	Octal D-type flip-flop with clear	.39	.35	.31
45065	74HCT373	20	Octal D-type flip-flop tri-state	.49	.45	.29
45073	74HCT374	20	Octal D-type flip-flop edge-trig. TS	.49	.39	.29
99303	74HCT541	20	Octal buffer/line driver tri-state	.69	.59	.39
45090	74HCT573	20	Octal D-type latched flip-flop tri-state	.69	.49	.34
45102	74HCT574	20	Octal D-type flip-flop edge-trigger tri-state	.69	.52	.36
45129	74HCT688	20	8-bit magnitude comparator	.69	.59	.49

CD4000 Series

SOIC Dual-In-Line

Part No.	Cross Ref.	Pins	Description	1	10	100
12562	CD4001**	14	Quad 2-input NOR gate	$.29	$.24	$.21
197261	CD4001M◆	SOIC-14	Quad 2-input NOR gate	.32	.26	.23
12597	CD4007	14	Dual comp. pair with inverter	.29	.25	.22
12634	CD4011**	14	Quad 2-input NAND gate	.29	.24	.21
197270	CD4011M◆	SOIC-14	Quad 2-input NAND gate	.32	.26	.23
12677	CD4013**	14	Dual D flip-flop with set/reset	.31	.24	.21
197288	CD4013M◆	SOIC-14	Dual D flip-flop with set/reset	.32	.26	.23
12706	CD4015*	16	Dual 4-stage static shift register	.29	.25	.22
12722	CD4016*	14	Quad bilateral switch	.29	.25	.22
12749	CD4017*	16	Decade counter/divider	.39	.35	.31
197296	CD4017M◆	SOIC-16	Decade counter/divider	.58	.42	.32
12773	CD4018	16	Presettable divide-by-N counter	.49	.45	.39
12802	CD4020*	16	14-stage binary/ripple counter	.55	.49	.44
197309	CD4020M◆	SOIC-16	14-stage binary/ripple counter	.59	.45	.35
12829	CD4021	16	8-stage static shift register	.42	.35	.29
54666	CD4022	16	Div. by 8-cntr./driver w/ 8-decoded outputs	.69	.62	.55
12845	CD4023*	14	Triple 3-input NAND gate	.29	.23	.17
12853	CD4024*	14	7-stage binary counter	.35	.29	.25
12888	CD4027*	16	Dual JK master-slave flip-flop	.29	.24	.21
197317	CD4027M◆	SOIC-16	Dual JK master-slave flip-flop	.42	.36	.32
12909	CD4028	16	BCD-to-decimal decoder	.35	.31	.27
12925	CD4029	16	Presettable up/down counter	.55	.49	.45
197325	CD4029M◆	SOIC-16	Presettable up/down counter	.59	.45	.35
12950	CD4040*	16	12-stage binary/ripple counter	.39	.35	.29

*10 pieces in CD4000 kit, right **20 pieces in CD4000 kit, right ◆ Surface Mount

CD4000 Series (Continued)

SOIC Dual-In-Line

Part No.	Cross Ref.	Pins	Description	1	10	100
197333	CD4040M◆	SOIC-16	12-stage binary/ripple counter	$.29	$.25	$.22
12984	CD4042	16	Quad clocked D latch	.49	.45	.39
12992	CD4043	16	Quad NOR R-S latch tri-state	.35	.26	.18
13004	CD4044	16	Quad 3-state NAND R-S latch tri-state	.49	.45	.39
13012	CD4046*	16	Micropower phase-locked loop	.49	.45	.39
13039	CD4047	14	Monostable/astable multivibrator	.59	.49	.45
13055	CD4049**	16	Hex/buffer/converter (inverting)	.29	.24	.21
197341	CD4049M◆	SOIC-16	Hex/buffer/converter (inverting)	.36	.30	.27
13071	CD4050*	16	Hex/buffer/converter (N-inverting)	.29	.26	.23
197350	CD4050M◆	SOIC-16	Hex/buffer/converter (N-inverting)	.36	.30	.27
13098	CD4051*	16	Single 8-channel multi./demultiplexer	.45	.39	.35
197368	CD4051M◆	SOIC-16	Single 8-channel multi./demultiplexer	.49	.39	.32
13119	CD4052	16	Diff. 4-channel multi./demultiplexer	.45	.39	.29
13127	CD4053	16	Triple 2-channel multi./demultiplexer	.45	.39	.35
13151	CD4060	16	14-stage ripple-carry binary	.49	.45	.39
13186	CD4066**	14	Quad bilateral switch	.35	.29	.25
197376	CD4066M◆	SOIC-14	Quad bilateral switch	.36	.23	.23
13215	CD4067	24	16-channel analog multi/demultiplexer	1.75	1.55	1.35
13231	CD4069*	14	Hex inverter (74C04)	.29	.26	.23
197384	CD4069M◆	SOIC-14	Hex inverter (74C04)	.32	.26	.23
13258	CD4070*	14	Quad EXCLUSIVE-OR gate (74C86)	.29	.26	.23
13274	CD4071*	14	Quad 2-input OR gate	.29	.26	.23
197392	CD4071M◆	SOIC-14	Quad 2-input OR gate	.32	.26	.23
13354	CD4081*	14	Quad 2-input AND gate	.25	.19	.17
197405	CD4081M◆	SOIC-14	Quad 2-input AND gate	.32	.26	.23
13400	CD4093*	14	Quad 2-input NAND Schmitt trigger	.29	.25	.22
197413	CD4093M◆	SOIC-14	Quad 2-input NAND Schmitt trigger	.36	.26	.23
13426	CD4094	16	8-stage shift-and-store bus register	.49	.45	.39
13434	CD4098	16	CMOS/MOS dual mono. multivibrator	.49	.37	.26
13442	CD4099	16	8-bit addressable latch	.49	.35	.25
44257	CD40106	14	Hex inverter Schmitt trigger (74C14)	.39	.35	.31
13469	CD4503	16	Tri-state hex buffer (74C367) 80C97	.49	.45	.39
13485	CD4510	16	BCD up/down counter	.69	.59	.49
13493	CD4511*	16	BCD to 7-seg. latch/decoder/driver	.69	.59	.49
197421	CD4511M◆	SOIC-16	BCD to 7-seg. latch/decoder/driver	.75	.70	.65
13514	CD4512	16	8-channel data selector	.59	.44	.31
13522	CD4514	24	4-bit latch/4-16 line decoder	.89	.79	.69
13549	CD4516	16	Binary up/down counter	.54	.41	.29
13565	CD4518	16	Dual BCD up counter	.49	.45	.39
13581	CD4520	16	Dual binary up counter	.49	.45	.35
13590	CD4522	16	Program. BCD divide-by-N counter	.89	.79	.69
13602	CD4526	16	Divide-by-N counter (binary)	.55	.47	.42
13611	CD4528	16	Dual monostable multivibrator	.69	.59	.49
13653	CD4538*	16	Dual precision monostable multivibrator	.59	.53	.48
197430	CD4538M◆	SOIC-16	Dual precision monostable multivibrator	.69	.48	.43
13688	CD4541	14	Oscillator/programmable timer	.49	.45	.39
13696	CD4543*	16	BCD to 7-segment decoder (LCD)	.69	.59	.49
13709	CD4553	16	3-digit BCD counter	2.95	2.75	2.49
13768	CD4584*	14	Hex Schmitt trigger (74C14) 40106	.39	.35	.29
197448	CD4584M◆	SOIC-14	Hex Schmitt trigger (74C14) 40106	.42	.36	.32

*10 pieces in CD4000 kit below **20 pieces in CD4000 kit below ◆ Surface Mount

CD4000 Series IC Cabinet Kit

SAVE $29



Get a total of 300 pieces comprised of 25 different ICs and save big! Includes 20-drawer component cabinet with drawers dividers and adhesive labels for labeling.

Part No.	Description	See page 65 for kit details	1	10
84970	300 pc. CD4000 series IC cabinet kit (25 types noted by */**)		$79.95	$71.95
130403	Refill package for 84970 kit (300 pcs.)		58.95	52.95

Phone 1-800-831-4242
Online www.Jameco.com
Order Anytime 24x7x365
Fax 1-800-237-6948

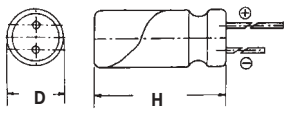




Aluminum Radial-Lead Electrolytic Capacitors

General purpose low voltage 85°C (A); HT Type 105˚C (B) ±20%

Operating temperature range		-40°C to +85°C (A); -40˚C to +105˚C (B)
Leakage Current (20°C)	After 1 min.	0.03CV or 4μA, whichever is greater
	After 2 min.	0.01CV or 3μA, whichever is greater



†RADIAL CAPACITOR CROSS REFERENCES

Elna: RC2/RE2; **IC:** RAR/RSS; **Marcon:** SEM/SSM; **Nichicon:** LB/VX/USA/SR/SA; **Rubycon:** MS7/TWSS; **Sprague:** 501D/513D; **UCC:** SME/SRE/SRA/SRG; **Panasonic:** KA/KS/SU

Part Number	Mfr. Cross Reference No. †	Op. Temp	Value (μF)	Voltage	Size (mm)* D x H	Pricing 1	10	100	500
158481	R0.47B100	B	0.47	100V	5x11.5	✳	$.05	$.04	.03
94160	5R1/50	A	1	50V	4x5	✳	.12	.08	.05
29831	R1/50	A	1	50V	5x11	✳	.09	.07	.05
158490	R1B100	B	1	100V	5x11.5	✳	.06	.05	.04
93729	R2.2/50	A	2.2	50V	5x11	✳	.10	.08	.045
199021	R2.2J/100	A	2.2	100V	5x11	✳	.12	.08	.05
135183	R3.3/50	A	3.3	50V	5x11	✳	.07	.05	.035
199030	R3.3J/100	A	3.3	100V	5x11	✳	.04	.035	.03
31000	R4.7/50	A	4.7	50V	5x11	✳	.09	.06	.045
198838	R10J/16	A	10	16V	5x11	✳	.045	.03	.025
94211	5R10/25	A	10	25V	4x5	✳	.13	.08	.05
94220	5R10/35	A	10	35V	5x5	✳	.15	.12	.06
94369	7R10/35	A	10	35V	5x7	✳	.12	.08	.05
29891	R10/50	A	10	50V	5x10	✳	.07	.05	.04
199048	R10J/100	A	10	100V	6.3x11	.25	.15	.10	.07
158529	R10B100	B	10	100V	6x11.5	✳	.08	.06	.05
158326	R22B35	B	22	35V	5x11.5	✳	.09	.07	.05
198846	R22J/16	A	22	16V	5x11	✳	.04	.03	.04
189918	R22J/25	A	22	25V	5x11	✳	.045	.04	.03
207870	R22B/25	B	22	25V	5x11	✳	.06	.05	.035
198942	R22J/35	A	22	35V	5x11	✳	.035	.03	.025
93737	R22/50	A	22	50V	6x11	✳	.06	.05	.035
199056	R22J/100	A	22	100V	6.3/11	.30	.21	.14	.09
198854	R33J/16	A	33	16V	5x11	✳	.045	.035	.025
198926	R33J/25	A	33	25V	5x11	✳	.045	.035	.025
93745	R33/50	A	33	50V	6x11	✳	.07	.06	.04
199064	R33J/100	A	33	100V	8x11.5	✳	.11	.10	.09
135301	R47/10	A	47	10V	5x12	✳	.06	.05	.045
198862	R47J/16	A	47	16V	5x11	✳	.045	.035	.025
93753	R47/25[1]	A	47	25V	6x7	✳	.06	.05	.04
198951	R47J/35	A	47	35V	5x10	✳	.05	.04	.03
199072	R47J/100	A	47	100V	10x12.5	.35	.26	.18	.13
158246	R47B25	B	47	25V	5x11.5	✳	.09	.07	.05
31114	R47/50	A	47	50V	6x11	✳	.06	.05	.045
207811	R100/10	A	100	10V	5x11	✳	.08	.06	.05
94289	5R100/16	A	100	16V	6x5	✳	.15	.12	.09
94431	7R100/16	A	100	16V	6x7	✳	.15	.11	.08
93761	R100/25	A	100	25V	6x11	✳	.09	.07	.05
198969	R100J/35	A	100	35V	6.3x11	✳	.07	.06	.05
29962	R100/50	A	100	50V	8x11	✳	.07	.06	.05
158393	R100B50	B	100	50V	8x12	✳	.11	.09	.07

Part Number	Mfr. Cross Reference No. †	Op. Temp	Value (μF)	Voltage	Size (mm)* D x H	Pricing 1	10	100	500
207845	R180/16	B	180	16V	6.5x15	✳	$.07	$.06	$.045
135124	7R220/10	A	220	10V	8x11	.28	.21	.15	.11
198871	R220J/16	A	220	16V	6.3x11	.25	.16	.11	.07
30496	R220/25	A	220	25V	8x11	✳	.08	.06	.05
158262	R220B25	B	220	25V	8x12	✳	.12	.09	.07
93770	R220/35	A	220	35V	10x16	✳	.12	.09	.08
93778	R220/50	A	220	50V	10x20	✳	.15	.12	.09
158406	R220B50	B	220	50V	10x17	✳	.17	.14	.11
199081	R220J/100	A	220	100V	12.5x25	1.10	.85	.63	.39
198889	R330J/16	A	330	16V	8x11.5	.29	.19	.13	.09
93796	R330/25	A	330	25V	10x19	✳	.20	.15	.11
198977	R330J/35	A	330	35V	10x12.5	.45	.35	.25	.18
199099	R330J/100	A	330	100V	12.5x25	1.45	1.10	.79	.59
93809	R470/16	A	470	16V	10x20	✳	.13	.11	.10
158203	R470B16	B	470	16V	8x12	✳	.12	.10	.09
31181	R470/25	A	470	25V	10x16	✳	.12	.10	.09
158289	R470B25	B	470	25V	8x14	✳	.15	.12	.10
93817	R470/35	A	470	35V	12x24	✳	.17	.15	.13
93825	R470/50	A	470	50V	13x20	.29	.27	.19	.13
158465	R470B63	B	470	63V	13x21	.30	.27	.24	.21
199101	R470J/100	A	470	100V	16x25	1.89	1.45	1.10	.80
30015	R1000/16	A	1000	16V	13x21	✳	.15	.13	.10
93833	R1000/25	A	1000	25V	12x20	✳	.25	.23	.18
158297	R1000B25	B	1000	25V	10x17	.35	.29	.25	.19
158377	R1000B35	B	1000	35V	13x21	.39	.35	.31	.27
93841	R1000/50	A	1000	50V	16x26	.52	.46	.41	.34
199110	R1000J/100	A	1000	100V	18x40	3.59	2.69	1.99	1.55
133145	R2200/16	A	2200	16V	16x26	.49	.36	.31	.24
30533	R2200/25	A	2200	25V	16x36	.45	.39	.35	.30
198985	R2200J/35	A	2200	35V	16x25	1.39	1.25	.99	.74
158431	R2200B50	B	2200	50V	16x31	.99	.89	.70	.61
198897	R3300J/16	A	3300	16V	12.5x25	1.25	.99	.73	.49
30891	R3300/25	A	3300	25V	16x31	.69	.60	.54	.48
198993	R3300J/35	A	3300	35V	16x35.5	1.95	1.49	1.15	.83
199013	R3300J/50	A	3300	50V	18x35.5	3.10	2.35	1.75	1.32
198900	R4700J/16	A	4700	16V	16x25	1.35	.99	.75	.55
93850	R4700/25	A	4700	25V	18x35	.79	.69	.59	.49
199005	R4700J/35	A	4700	35V	18x35.5	2.95	2.19	1.69	1.25
163301	R4700/50	A	4700	50V	22x42	1.99	1.79	1.50	1.31
31510	R6800/16	A	6800	16V	18x36	1.12	1.01	.88	.79
198934	R6800J/25	A	6800	25V	18x35.5	2.79	2.15	1.59	1.19

* Capacitor dimensions may vary [1] Non-Polarized

✳ **Prepackaged: please order in increments of 10, 100 or 1000**

Snap Mount Large Can Aluminum Electrolytic Capacitors (±20%)

- Designed as input filter for switched mode power supply; standard 10mm (.400") snap-in spacing
- Operating temperature range: -40°C to +85°C max. leakage current: 0.02CV (uA) or 3mA whichever is smaller
- Can-Top safety vent

NEW Snap-Ins! SALE



115422

† **CROSS REFERENCES: Aero M**: LP/LPR; **Elna**: LP3/LP4; **Illinois Capacitor**: LBA/LPR; **Mallory**: LPX; **Marcon**: CEAWF; **Nichicon**: LLK/LLQ; **Panasonic**: TS-UP/TS-U; **Phillips** (MEPCO): 3487/3489; **Rubycon**: RSP; **Sprague**: 80D/82D; **United Chemicon**: SMG(VN)/SMH(VN)

* Capacitor dimensions may vary

Part Number	Mfr. Cross Reference No. †	Capacitance	Voltage	Size (mm)* D x H	Pricing 1	10	100
203211	SN220/400/2	220μF	400V	22 x 51	$4.95	$3.95	$3.19
203220	SN220/400/3	220μF	400V	30 x 30	5.95	4.69	3.29
203238	SN270/350	270μF	350V	25 x 40	5.95	4.69	3.29
203246	SN330/400	330μF	400V	30 x 46	6.95	5.49	4.09
115377	SN470/200	470μF	200V	30 x 41	2.39	2.15	1.95
203254	SN470/400/4	470μF	400V	35 x 41	6.95	5.49	4.09
203262	SN470/400/5	470μF	450V	35 x 51	9.95	7.95	6.39

Part Number	Mfr. Cross Reference No. †	Capacitance	Voltage	Size (mm)* D x H	Pricing 1	10	100
155889	SN560/200	560μF	200V	23 x 41	$2.99	$2.69	$2.45
203271	SN680/200/2	680μF	200V	35 x 25	4.49	3.49	2.75
203289	SN680/200/3	680μF	200V	30 x 31	4.95	3.95	3.19
203297	SN820/200/4	820μF	200V	30 x 41	4.49	3.49	2.75
203300	SN820/200/2	820μF	200V	35 x 25	4.95	3.95	3.19
115422	SN4700/50	4,700μF	50V	30 x 41	2.89	2.59	2.35
115431	SN6800/50	6,800μF	50V	30 x 51	3.45	3.15	2.85
157737	SN10000/50	10,000μF	50V	35 x 40	4.95	4.45	3.99

Surface Mount

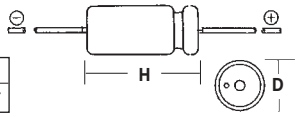
Part Number Color Code
New Sale Refurbished Closeout



Aluminum Axial-Lead Electrolytic Capacitors

General purpose low voltage 85°C

Operating temperature range	-40°C to +85°C
Leakage Current (After 2 minutes 20°C)	0.02CV or 2μA, whichever is greater



† **AXIAL CAPACITOR CROSS REFERENCES:** **Elna:** RE2; **IC:** RAR; **Marcon:** SEM; **Nichicon:** LB/VX; **Rubycon:** TWSS; **Sprague:** 501D/513D; **UCC:** SME; **Panasonic:** SU

* Capacitor dimensions may vary

✳ **Prepackaged: please order in increments of 10, 100 or 1000**

Part Number	Mfr. Cross Ref. No. †	Value (μF)	Voltage	Size (mm)* DxH	Pricing 1	10	100	500
10866	A1/50	1	50V	5x13	✳	$.15	$.115	$.09
199128	A2.2J/16	2.2	16V	6x13	✳	.20	.14	.10
93569	A2.2/50	2.2	50V	6x13	✳	.19	.14	.10
199136	A3.3J/16	3.3	16V	6x12	✳	.09	.08	.07
199419	A3.3J/50	3.3	50V	6x12	✳	.20	.14	.10
11076	A4.7/50	4.7	50V	6x13	✳	.18	.13	.11
199427	A6.8J/50	6.8	50V	6x12	✳	.20	.14	.10
199144	A10J/16	10	16V	6x12	✳	.20	.14	.10
199259	A10J/25	10	25V	5x12	✳	.20	.14	.10
93577	A10/35	10	35V	6x13	✳	.19	.14	.10
10882	A10/50	10	50V	6x12	✳	.19	.14	.10
199152	A22J/16	22	16V	6x12	✳	.20	.14	.10
199267	A22J/25	22	25V	6x12	✳	.20	.14	.10
10997	A22/50	22	50V	6x12	✳	.19	.14	.10
199161	A33J/16	33	16V	6x13	✳	.20	.14	.10
199275	A33J/25	33	25V	6.3x12	✳	.20	.14	.10
199347	A33J/35	33	35V	6.3x16	✳	.20	.14	.10
199435	A33J/50	33	50V	6.3x16	✳	.20	.14	.10
199179	A47J/16	47	16V	6.3x12	✳	.20	.14	.10
135319	A47/25	47	25V	8x16	✳	.23	.18	.14
199355	A47J/35	47	35V	6.3x16	✳	.20	.14	.10
11105	A47/50	47	50V	8x16	✳	.19	.14	.10
199443	A68J/50	68	50V	8x15	.27	.23	.19	.14
199187	A100J/16	100	16V	6.3x16	.28	.24	.20	.15
199283	A100J/25	100	25V	8x16	.29	.25	.21	.15
93551	A100/35	100	35V	8x16	✳	.24	.19	.14
10911	A100/50	100	50V	8x20	✳	.25	.19	.15
199195	A220J16	220	16V	8x16	.28	.24	.20	.15
199291	A220J/25	220	25V	8x16	.29	.25	.21	.15
199363	A220J/35	220	35V	10x17	.35	.28	.25	.19

Part Number	Mfr. Cross Ref. No. †	Value (μF)	Voltage	Size (mm)* DxH	Pricing 1	10	100	500
11017	A220/50	220	50V	10x20	$.29	$.25	$.22	$.18
199208	A330J/16	330	16V	8x16	✳	.14	.12	.11
199304	A330J/25	330	25V	10x17	.35	.28	.25	.19
199371	A330J/35	330	35V	10x17	.29	.25	.22	.19
199451	A330J/50	330	50V	13x22	.51	.39	.27	.34
199216	A470J/16	470	16V	8x16	.35	.28	.25	.19
199312	A470J/25	470	25V	10x17	.45	.37	.33	.28
199380	A470J/35	470	35V	10x21	.51	.41	.35	.31
11121	A470/50	470	50V	13x31	.59	.49	.45	.39
199460	A680J/50	680	50V	16x25	.85	.75	.57	.45
93631	A1000/16	1000	16V	13x27	.61	.49	.42	.39
10954	A1000/25	1000	25V	13x31	.59	.49	.44	.34
93649	A1000/35	1000	35V	13x26	.79	.71	.65	.57
147256	A1000/50	1000	50V	16x31	.69	.59	.55	.49
11033	A2200/16	2200	16V	16x40	.79	.71	.65	.59
199321	A2200J/25	2200	25V	16x28	1.11	.90	.78	.59
93657	A2200/35	2200	35V	16x30	1.25	1.10	.99	.85
199478	A2200J/50	2200	50V	18x42	2.55	2.10	1.95	1.75
199224	A3300J/16	3300	16V	16x26	.79	.71	.65	.58
93665	A3300/25	3300	25V	16x32	.89	.79	.69	.59
199398	A3300J/35	3300	35V	18x37	3.39	2.95	2.29	2.10
199486	A3300J/50	3300	50V	22x43	4.29	3.29	3.15	2.95
199232	A4700J/16	4700	16V	16x30	2.10	1.69	1.25	.89
93673	A4700/25	4700	25V	22x39	1.59	1.45	1.15	.99
199401	A4700J/35	4700	35V	18x40	4.85	3.99	3.35	2.99
158810	A4700A50	4700	50V	25x43	2.95	2.49	2.25	1.95
199241	A6800J/16	6800	16V	16x33	2.49	2.20	1.75	1.55
199339	A6800J/25	6800	25V	18x40	2.59	2.35	2.10	1.89
93681	A10000/16	10000	16V	22x51	2.25	1.80	1.35	.95



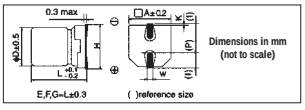
193009 Tape and Reel



193009

Surface Mount Aluminum Electrolytic Capacitors

Operating temperature range		-40°C to +85°C
Leakage Current (20°C)	after 2 minutes	1≤ .01CV or 3μA



✦ Surface Mount † **Cross Reference:** **Panasonic:** VS Series ✳ **Prepackaged: please order in increments of 10, 100 or 500**

Part Number	Mfr. Cross Ref No. †	Value (μF)	Voltage	Dia. (mm)	Pricing 1	10	100	500
193228	SE1/50✦	1	50	4.0	✳	$.25	$.19	$.16
193236	SE2.2/50✦	2.2	50	4.0	.39	.35	.29	.21
193244	SE3.3/50✦	3.3	50	4.0	✳	.22	.19	.16
193076	SE427/25✦	4.7	25	4.0	✳	.35	.22	.19
193252	SE4.7/50✦	4.7	50	5.0	✳	.16	.14	.12
192997	SE10/16✦	10	16	4.0	✳	.29	.26	.22
193084	SE10/25✦	10	25	5.0	✳	.33	.22	.19
193164	SE10/35✦	10	35	5.0	✳	.26	.22	.19
193261	SE10/50✦	10	50	6.3	✳	.19	.16	.14
192891	SE22/6.3✦	22	6.3	4.0	✳	.31	.29	.22
193009	SE22/16✦	22	16	5.0	✳	.37	.21	.18
193092	SE22/25✦	22	25	6.3	.39	.29	.25	.22
193172	SE22/35✦	22	35	6.3	✳	.19	.16	.14
193279	SE22/50✦	22	50	6.3	✳	.26	.22	.19
193017	SE33/16✦	33	16	5.0	✳	.29	.25	.20
193105	SE33/25✦	33	25	6.3	✳	.22	.19	.17
193181	SE33/35✦	33	35	8.0	✳	.29	.26	.23
193287	SE33/50✦	33	50	8.0	✳	.30	.25	.22
193025	SE47/16✦	47	16	6.3	✳	.33	.28	.23
193113	SE47/25✦	47	25	6.3	.39	.35	.29	.25
193199	SE47/35✦	47	35	6.3	✳	.26	.22	.19

Part Number	Mfr. Cross Ref. No. †	Value (μF)	Voltage	Dia. (mm)	Pricing 1	10	100	500
193295	SE47/50✦	47	50	10.0	$.39	$.35	$.31	$.26
192903	SE100/6.3✦	100	6.3	6.3	.39	.29	.25	.22
192954	SE100/10✦	100	10	6.3	✳	.19	.16	.14
193033	SE100/16✦	100	16	8.0	.45	.39	.32	.26
193121	SE100/25✦	100	25	8.0	✳	.38	.29	.22
193201	SE100/35✦	100	35	10.0	.39	.35	.31	.26
193308	SE100/50✦	100	50	10.0	.52	.45	.39	.35
192911	SE220/6.3✦	220	6.3	6.3	✳	.29	.26	.23
192962	SE220/10✦	220	10	8.0	✳	.37	.29	.25
193041	SE220/16✦	220	16	8.0	✳	.38	.29	.27
193130	SE220/25✦	220	25	10.0	.59	.49	.43	.39
193210	SE220/35✦	220	35	8.0	.55	.45	.39	.35
193316	SE220/50✦	220	50	10.0	.69	.55	.49	.45
193050	SE330/16✦	330	16	10.0	.59	.49	.44	.39
193148	SE330/25✦	330	25	8.0	.55	.45	.39	.35
192920	SE470/6.3✦	470	6.3	8.0	.69	.59	.49	.45
192971	SE470/10✦	470	10	10.0	✳	.54	.48	.43
193068	SE470/16✦	470	16	10.0	.55	.45	.39	.35
193156	SE470/25✦	470	25	10.0	✳	.55	.49	.47
192938	SE1000/6.3✦	1000	6.3	10.0	.55	.45	.39	.35
192989	SE1000/10✦	1000	10	10.0	.89	.75	.65	.59
192946	SE1500/6.3✦	1500	6.3	10.0	.69	.55	.49	.44

Ceramic Disc Capacitors (±20%)

25, 50 and 1000 Volt, Z5U Temperature Coefficient

Operating temperature range	+10°C to +85°C
Cap. change over temp. range	+22% to -56%
Dielectric withstanding voltage	2.5 times rated volt. for not < 1 sec.

* Capacitor dimensions and lead spacing may vary

✳**Prepackaged: please order in increments of 10, 100 or 1000**

Ceramic Disc Capacitors can be special ordered on ammo-style tape – 1000 piece minimum



Low Voltage 50VDC Ceramic

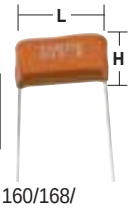
Part Number	Mfr. Cross Ref. No.	Capacitance	Voltage	Dia.* (mm)	Pricing 1	10	100	1000	5000
135141	DC2.2	2.2pF	50V	5	✳	$.05	$.035	$.02	$.015
15333	DC10	10pF	50V	5	✳	.07	.05	.02	.015
15405	DC22	22pF	50V	6	✳	.07	.05	.025	.02
15510	DC47	47pF	50V	5	✳	.05	.035	.02	.015
15341	DC100	100pF	50V	5	✳	.05	.035	.025	.02
15413	DC220	220pF	50V	5	✳	.05	.035	.025	.015
15528	DC470	470pF	50V	5	✳	.08	.065	.025	.22
207853	DC820/1000	820pF	1000V	14	✳	.06	.04	.03	.02
15190	DC.001	.001µF	50V	6	✳	.07	.056	.028	.025
97341	DC.0022/1K20	.0022µF	1000V	11	✳	.15	.10	.07	.055
15211	DC.0047	.0047µF	50V	6	✳	.05	.035	.03	.02
15229	DC.01	.01µF	50V	6	✳	.06	.04	.03	.02
97375	DC.01/1K20	.01µF	1000V	12	✳	.15	.10	.07	.055
15245	DC.022	.022µF	50V	8	✳	.07	.05	.04	.03
15253	DC.047	.047µF	50V	8	✳	.07	.06	.05	.04
151116	DC.1/25	.1µF	25V	6	✳	.12	.11	.08	.07
15270	DC.1	.1µF	50V	8	✳	.13	.11	.10	.08

Mylar Capacitors (±10%) NEW

Metallized Polyester Film Capacitors

• High performance at low cost • Non-inductive construction

Operating temperature range	-40°C to +85°C
Dissipation factor	≤.01 (at 1kHz)
Dielectric strength	150% of rated voltage for 5 sec.



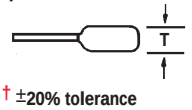
1 *Mylar Capacitor Cross References*

Panasonic: ECQ-E Series; **Sprague:** DF/450P/451P/453P; **Westlake:** 160/168/185/167/184/186; **Rubycon:** MC/MN; **Mepco:** 713A1/719A1/C280; **TRW:** X601PE/X601CPE; **Packtron:** MF/RB; **Secor:** MMKS/MMKR/MMDR; **RIFA:** PHE353/ PHE354; **Roederstein:** MKT 1818/MKT 1822; **WIMA:** MKS; **CSF Thompson:** MD/ MC; **Siemens:** B325X-XX; **NIC:** NEM/NRM; **Nichicon:** DDXM; **Phillips:** 712 A1 series

* Capacitor dimensions and lead spacing may vary

✳**Prepackaged: please order in increments of 10, 100 or 1000**

Mylar Capacitors can be special ordered on ammo-style tape – 1000 piece minimum



† ±20% tolerance

Part Number	Mfr. Cross Ref. No. 1	Capacitance	Voltage	Size (mm)* L x T x H	Pricing 1	10	100	1000
26833	MY.001	.001µF	100V	7.0 x 3.0 x 7.0	✳	$.10	$.07	$.05
207802	MY.0015/1000	.0015µF	1000V	23.5 x 5.1 x 10.7	✳	.09	.05	.04
26868	MY.0022	.0022µF	100V	6.0 x 3.0 x 10.0	✳	.10	.06	.04
26876	MY.0047	.0047µF	100V	6.0 x 3.0 x 9.0	✳	.14	.13	.11
207829	MY.0068/220	.0068µF	220V	18.0 x 5.5 x 10.0	✳	.10	.06	.04
26884	MY.01	.01µF	100V	6.0 x 3.0 x 7.0	✳	.10	.06	.04
207837	MY.018/50	.018µF	50V	6.1 x 2.6 x 11.3	✳	.09	.05	.04
26905	MY.022	.022µF	100V	6.0 x 3.0 x 10.0	✳	.15	.10	.06
26921	MY.033	.033µF	100V	8.0 x 4.0 x 11.0	✳	.15	.10	.06
207861	MY.033/400	.033µF	400V	11.0 x 4.0 x 8.0	✳	.10	.06	.04
26930	MY.047	.047µF	100V	8.0 x 4.0 x 12.0	✳	.15	.10	.06
135562	MY.1/50	.1µF†	50V	14.0 x 6.0 x 12.0	✳	.13	.09	.05
26956	MY.1	.1µF	100V	12.5 x 5.0 x 9.5	✳	.17	.12	.07
93921	MY.1/250	.1µF	250V	12.5 x 5.5 x 10	✳	.19	.16	.13
135546	MY.22/50	.22µF	50V	17.0 x 9.0 x 16.0	✳	.23	.21	.19
26972	MY.22	.22µF	100V	12.5 x 5.5 x 10	✳	.19	.12	.085
93964	MY.33/250	.33µF	250V	18.0 x 7.0 x 12.5	.32	.25	.21	.19
26999	MY.47	.47µF	100V	18.0 x 6.0 x 11.5	.32	.25	.20	.17
27001	MY1	1µF	100V	18.0 x 7.5 x 14.0	.59	.49	.44	.31
93981	MY1/250	1µF	250V	26.0 x 9.0 x 16.0	.89	.69	.49	.29
93999	MY2.2/250	2.2µF	250V	26.0 x 9.0 x 16.0	.75	.65	.55	.45

Monolithic Ceramic Capacitors (±20%) (Z5U Series)

Applications: • Data processing
• Communications engineering
Operating temperature range: -10°C to +85°C

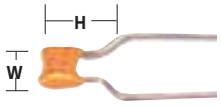


Monolithic

* Capacitor dimensions and lead spacing may vary

✳**Prepackaged: please order in increments of 10, 100 or 1000**

Ceramic Disc Capacitors can be special ordered on ammo-style tape – 1000 piece minimum



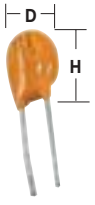
Part Number	Mfr. Cross Ref. No.	Capacitance	Voltage	Size (mm)* W x T x H	Pricing 1	10	100	1000	5000
81541	MD10	10pF	50V	3.5 x 2.0 x 3.0	✳	$.12	$.09	$.07	$.05
81533	MD22	22pF	50V	4.0 x 2.0 x 4.0	✳	.10	.08	.07	.04
81525	MD100	100pF	50V	3.5 x 2.0 x 3.0	✳	.09	.07	.045	.035
81517	MD.001	.001µF	50V	4.5 x 2.0 x 3.0	✳	.09	.07	.05	.035
138181	MD.0022	.0022µF	50V	4.0 x 2.0 x 5.5	✳	.07	.06	.05	.04
138202	MD.0047	.0047µF	50V	5.0 x 2.0 x 5.5	✳	.09	.07	.05	.035
25507	MD.01	.01µF	50V	3.5 x 2.0 x 3.0	✳	.09	.06	.04	.035
57621	MD.047	.047µF	50V	2.5 x 2.5 x 3.0	✳	.10	.07	.05	.045
25523	MD.1	.1µF	50V	6.0 x 2.0 x 4.0	✳	.07	.06	.04	.035
25540	MD.22	.22µF	50V	6.0 x 2.0 x 4.5	✳	.17	.12	.08	.06
138237	MD.33	.33µF	50V	6.0 x 2.0 x 8.0	✳	.20	.17	.11	.07
25558	MD.47	.47µF	50V	4.5 x 2.5 x 4.5	✳	.25	.21	.16	.14
81509	MD1	1µF	50V	6.0 x 3.0 x 7.0	.58	.52	.46	.41	.37

Dipped Tantalum Capacitors (±10%)

Resin Dipped Solid Tantalum Capacitors

• Flame retardant coating • Exceptional temperature stability
• Low leakage current • Moisture-resistant
• Designed for entertainment and commercial equipment

Operating temp. range	-55°C to +85°C (+125°C with derating)
Rated voltage DC	≤ + 85°C



1 *Dipped Tantalum Capacitor Cross References*

Panasonic: EF Series; **AVX:** Tap Series; **Sprague:** 196D and 199D; **Kemet:** T350/ T360; **Mepco:** 49GS; **NEC:** DN; **Nichicon:** 599; **NIC:** NDTM; **Hitachi:** TSD-3; **Matsuo:** 202

* Capacitor dimensions and lead spacing may vary

✳**Prepackaged: please order in increments of 10, 100 or 1000**

Part Number	Mfr. Cross Ref No. 1	Capacitance	Voltage	Size (mm)* D x H	Pricing 1	10	100	1000
33486	TM.1	.1µF	35V	4.5 x 7.0	✳	$.25	$.20	$.18
33507	TM.22	.22µF	35V	4.5 x 7.0	✳	.25	.19	.15
33523	TM.33	.33µF	35V	4.5 x 7.0	✳	.17	.15	.13
33531	TM.47	.47µF	35V	4.5 x 7.0	✳	.25	.19	.17
154860	TM1/25	1µF	25V	3.0 x 6.0	✳	.29	.25	.22
33662	TM1	1µF	35V	4.5 x 7.0	✳	.29	.25	.22
94001	TM2.2/16	2.2µF	16V	4.5 x 7.0	✳	.29	.25	.22
94019	TM2.2/25	2.2µF	25V	4.5 x 7.0	✳	.35	.29	.25
33734	TM2.2	2.2µF	35V	4.5 x 7.5	.39	.35	.29	.25
33769	TM3.3	3.3µF	35V	4.5 x 7.5	.63	.56	.49	.39
94035	TM4.7/16	4.7µF	16V	4.5 x 7.5	.47	.38	.28	.20
94043	TM4.7/25	4.7µF	25V	5.0 x 8.5	.50	.45	.39	.35
33806	TM4.7	4.7µF	35V	5.5 x 9.0	.55	.48	.37	.33
33873	TM6.8	6.8µF	35V	6.0 x 10.0	.65	.55	.45	.39
94060	TM10/16	10µF	16V	5.0 x 9.0	.45	.40	.36	.32
94078	TM10/25	10µF	25V	5.5 x 9.0	.59	.50	.40	.36
33689	TM10	10µF	35V	6.0 x 10.0	.89	.79	.69	.59
33718	TM15	15µF	25V	6.0 x 10.0	.89	.79	.69	.59
33751	TM22	22µF	6.3V	5.0 x 9.0	.45	.35	.31	.27
94094	TM22/16	22µF	16V	6.0 x 10.0	.69	.59	.49	.45
94107	TM22/25	22µF	25V	7.0 x 10.5	1.85	1.67	1.50	1.35
33785	TM33	33µF	25V	8.0 x 13.0	2.59	2.25	1.95	1.75
94123	TM47/16	47µF	16V	8.0 x 13.0	1.43	1.29	1.19	1.07
33822	TM47	47µF	25V	9.0 x 14.5	2.95	2.75	2.49	2.25
33700	TM100	100µF	6.3V	7.0 x 10.5	1.19	1.09	.95	.85

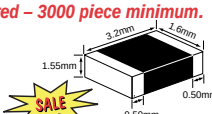
SMT Multilayer Ceramic Chip Capacitors

Any surface mount Ceramic Chip Capacitor may be special ordered – 3000 piece minimum.



0805 SMT CASE

SALE



1206 SMT CASE

X7R SERIES (±10%)

0805 SMT Case			Pricing per each				
Part Number	Capacitance	Volt.	100 pc. Increments	500	1000	OEM Reels 3000	OEM Reels 5000
87311	.01µF	50	$.12	$.09	$.07	$.06	$.06
87370	.1µF	25	.14	.11	.08	.06	.05

1206 SMT Case			Pricing per each				
Part Number	Capacitance	Volt.	100 pc. Increments	500	1000	OEM Reels 3000	OEM Reels 5000
87329	.01µF	50	$.15	$.12	$.09	$.07	$.06
87388	.1µF	50	.19	.17	.15	.11	.10
87396	.22µF	25	.25	.22	.19	.15	.14

Z5U SERIES (±20%)

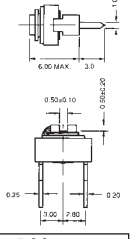
0805 SMT Case			Pricing per each			
Part Number	Capacitance	Voltage	100 pc. Increments	500	1000	OEM Reels 5000
87177	.1µF	50	$.12	$.07	$.05	$.03

1206 SMT Case			Pricing per each			
Part Number	Capacitance	Voltage	100 pc. Increments	500	1000	OEM Reels 5000
87185	.1µF	50	$.08	$.12	$.09	$.06
87206	.22µF	50	.09	.06	.05	.04
87222	.47µF	50	.25	.22	.19	.17

5mm Ceramic Trimmer Capacitor

- Working voltage: 200VDC
- Withstand voltage: 400VDC
- Turning torque: 35~200 g-cm
- Operating temperature range: -30˚C~+85˚C
- Insulation resistance: >10MΩ min. @ 250VDC





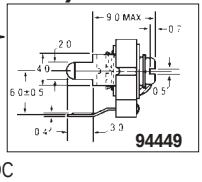
Part Number	Capacitance Range (pF)	Q Factor @ 1MHz	Color Codes	Pricing 1	10	100	1000
136979	9.0-50.0	> 200	Green	$.89	$.80	$.72	$.65

8mm .315" Ceramic Trimmer Capacitors (250WVDC) Thru Hole



134818

SALE



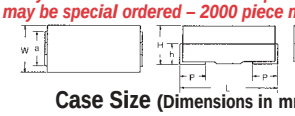
94449

- Working voltage: 250VDC
- Withstand voltage: 550VDC
- Turning torque: 40~200 g-cm
- Operating temperature range: -55˚C~+85˚C
- Insulation resistance: 10MΩ min. @ 250VDC

Part Number	Capacitance Range (pF)	Q Factor @ 1MHz	Color Codes	Pricing 1	10	100	1000
134818	3.5–13.0	> 300	Ivory	$.69	$.55	$.42	$.29
32838	4.0–34.0	> 300	Yellow	.99	.79	.69	.59
32854	6.0–70.0	> 200	Nil	1.05	.85	.75	.65
94449	8.5–100	> 200	Purple	1.05	.93	.81	.77
94465	8.5–120	> 200	Nil	.99	.79	.65	.59

SMT Resin Molded Chip Tantalum Electrolytic Capacitors (±20%)

Any surface mount Tantalum Chip Capacitor may be special ordered – 2000 piece minimum.



Case Size (Dimensions in mm)

SALE

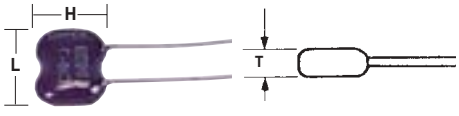
EIA CASE CODE	L ±0.2	W ±0.2	H ±0.2	P ±0.3	a ±0.2	h(min)
A (3216)	3.2	1.6	1.7	0.8	1.2	0.7
B (3528)	3.5	2.8	1.9	0.8	2.0	0.7
C (6032)	6.0	3.2	2.5	1.3	2.0	1.0
D (7343)	7.3	4.3	2.9	1.3	2.4	1.0

10V SMT Tantalum			Pricing per each				
Part Number	Capacitance	Case Size	10 pc. Increments	100	500	OEM Reels 500	OEM Reels 2000
87020	10µF	B	$.55	$.49	$.35	$.35	$.29
87118	100µF	D	1.49	1.19	.89	.89	.75

16V SMT Tantalum			Pricing per each				
Part Number	Capacitance	Case Size	10 pc. Increments	100	500	OEM Reels 500	OEM Reels 2000
86932	1µF	A	$.39	$.35	$.25	$.25	$.19
87038	10µF	C	.59	.49	.45	.45	.40
87100	47µF	D	1.09	.89	.79	.79	.69

Dipped Silver Mica Capacitors (±5%)

Metallized Polyester Film Capacitors



* Capacitor size and lead spacing may vary

Case type	DM15
Lead space (in.)	.23
Tolerance	± 5%
Operating temperature range	-55°C to +125°C
Size (mm) – L x T x H*	11 x 4 x 9

Part Number	Mfr. Cross Ref. No.	Capacitance	Voltage	Pricing 1	10	100	1000
15991	DM100	10pF	500V	$.49	$.39	$.29	$.25
16037	DM220	22pF	500V	.49	.39	.29	.23
16070	DM330	33pF	500V	.49	.39	.29	.23
16096	DM470	47pF	500V	.45	.37	.31	.28
16002	DM101	100pF	500V	.49	.39	.31	.27
16088	DM331	330pF	500V	.95	.75	.55	.35
16109	DM471	470pF	500V	.89	.79	.65	.55
16011	DM102	1000pF	100V	.85	.75	.65	.55

Memory Back-Up Capacitors

Applications:

- Back-up on CMOS microcomputers, static RAM, DTSs (digital tuning systems)
- Memory back-up of remote controllers

SALE



142922

Features:

- Excellent voltage holding characteristics for low back-up currents
- Small size vs. capacitance
- Voltage: 5.5VDC
- Capacitance ranges from .047 to 1F

Capacitor dimensions and lead spacing may vary

Part Number	Mfr. Cross Ref. No.	Cap. (Farad)	Pricing 1	10	100
142922	MBC.047/5.5	.047	$1.95	$1.75	$1.49
142949	MBC.22/5.5	.22	2.29	1.99	1.60
143010	MBC.47/5.5	.47	2.95	2.69	1.95
142957	MBC1.0/5.5	1.0	4.75	4.29	3.85

SMD Resistor Assortment (±5%)

144 Values, 50 pcs. each; 7,200 Pieces Total



- Surface mount 0805 resistors, 144 values ranging from 1.2Ω to 10MΩ (50 pieces of each value)
- Size: L x W (mm) 2.0 x 1.25
- Thickness: 0.5mm
- Max. overload voltage: 200V
- Operating temp.: -50˚C to 120˚C
- Weight: 1.9 lbs
- Case size (two cases): 10.5"L x 6.7"W x 1.7"T

Resistance Value Chart:

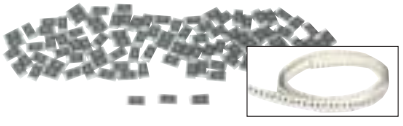
1.2	33	430	4.3k	51k	620k
1.6	39	470	4.7k	56k	750k
2.2	43	510	5.6k	62k	820k
2.4	47	560	6.2k	68k	910k
2.7	51	620	6.8k	75k	1.0M
3.0	56	680	7.5k	82k	1.6M
3.3	62	750	8.2k	91k	1.8M
4.3	68	820	9.1k	100k	2.0M
4.7	75	910	10k	110k	2.2M
5.1	85	1.0k	11k	120k	2.4M
5.6	91	1.1k	12k	150k	2.7M
6.2	110	1.2k	13k	160k	3.0M
6.8	120	1.3k	15k	180k	3.3M
7.5	130	1.5k	16k	200k	3.6M
8.2	150	1.6k	18k	220k	3.9M
9.1	160	1.8k	20k	240k	4.3M
10	180	2.0k	22k	270k	4.7M
16	200	2.2k	24k	300k	5.1M
18	220	2.4k	27k	360k	5.6M
20	240	2.7k	30k	390k	6.8M
22	270	3.0k	33k	430k	7.5M
24	300	3.3k	36k	470k	8.2M
27	360	3.6k	39k	510k	9.1M
30	390	3.9k	43k	560k	10M

Includes: Case with labels

Part No.	Mfr. Cross Ref. No.	1	10	25
172806	16-500	$79.95	$71.95	$64.79

SMD Resistor Assortment (±1%)

56 Values, 200 pcs. each; 11,200 pcs.Total



Packaged in strips of 200 pieces each

Surface mount 1206 Series resistors, 56 values ranging from 10 to 1MΩ – see chart.

- Max. working voltage: 200V
- Max. overload voltage: 400V
- Power @ 70˚C: 1/8W
- Operating temp.: -55˚C to +125˚C
- Resistor dimensions (mm): 3.10±0.10L x 1.55±0.10 W x 0.55±0.10–0.05H top terminator: 0.45±0.20W bottom terminator: 0.35±0.15W
- Temp. coefficient: ±100 ppm/˚C
- 4-digit indication: 1st 3 significant, 4th multiplier

Value Chart (Ohms)

10	200	3.92k	75k
12.1	243	4.99k	90.9k
15	301	6.19k	100k
20	392	7.5k	121k
24.3	499	9.09k	150k
30.1	619	10k	200k
39.2	750	12.1k	243k
49.9	909	15k	301k
61.9	1k	20k	392k
75	1.21k	24.3k	499k
90.9	1.5k	30.1k	619k
100	2k	39.2k	750k
121	2.43k	49.9k	909k
150	3.01k	61.9k	1M

Part No.	Mfr. Cross Ref. No.	1	10	25
156881	SMR1206SB	$99.95	$89.95	$79.95

SMD Plastic Fliptop Case

Store 128 Different Surface Mount Components





- Perfect solution for storing P/N 156881 SMD resistor assortment, above
- 8 rows x 16 column grid
- Fliptop openings on each bin
- Color: gray
- Padded cover locks bins closed
- Size: 11.0"L x 8.3"W x 1.7"Thick
- Weight: 1.4 lbs.

Includes: Labels for each bin

Part No.	Description	1	10
164267	SMD fliptop case	$44.95	$39.95



Single Resistor Value Pricing: 1/4-Watt Carbon Film Resistors (±5%)

To order: Use 5-digit part number adjacent to ohms in chart below
Values may not be combined for quantity price breaks

$.99/bag 100 piece bags

Pricing (Sold in bags of 100 pieces)				
Specify Part No. & Resistor Value	1 Bag	10 Bags	50 Bags	100 Bags
(see Standard Resistor Value Chart below)	$.99/bag	$.57/bag	$.49/bag	$.46/bag

Assortment Pricing: 1/4-Watt Carbon Film Resistor (±5%)

Assortments may not be combined for quantity price breaks

Part No.	Description (Including bulk pack values)	1	10	25
10719	5 ea. of 70 values (every other value from 10 ohm-5.6 MΩ) (350 pcs.)	$9.95	$8.95	$7.95
103165	10 ea. of 24 values marked (●) and 50 ea. of 6 values marked (✕) (540 pcs.)	12.95	11.49	9.95
10663	100 ea. of 27 values marked (▲) (2,700 pcs.)	24.95	22.49	20.49
10655	100 ea. of 160 values (all resistor values in the chart below) (16,000 pcs.)	119.95	107.95	96.95
81832	1/4 watt resistor component cabinet kit – 30 values (540 pcs.) see page 65	27.95	24.95	22.49

Bulk Pack resistor values can be special ordered in quantities of 1000 pieces by phone or fax. Please include ohms desired. $10.95/k

▲● see table on top right

Standard Resistor Values Chart

Part No.	Ohms	Part No.	Ohms	Part No.	Ohms	Part No.	Ohms	Part No.	Ohms	Part No.	Ohms	Part No.	Ohms	Part No.	Ohms
Bulk Pack	2.2	Bulk Pack	15	**29946** ▲✕	100	**31499** ▲●	680	**31026** ▲✕	4.7k	**30841** ▲●	33k	**30525**	220k	Bulk Pack	1.5M
Bulk Pack	2.4	Bulk Pack	16	Bulk Pack	110	Bulk Pack	750	**31237** ▲●	5.1k	Bulk Pack	36k	Bulk Pack	240k	Bulk Pack	1.6M
Bulk Pack	2.7	Bulk Pack	18	**30082**	120	Bulk Pack	820	**31270** ▲●	5.6k	Bulk Pack	39k	Bulk Pack	270k	Bulk Pack	1.8M
Bulk Pack	3.0	Bulk Pack	20	Bulk Pack	130	Bulk Pack	910	Bulk Pack	6.2k	Bulk Pack	43k	Bulk Pack	300k	Bulk Pack	2.0M
Bulk Pack	3.3	Bulk Pack	22	**30162** ▲●	150	**29663** ▲✕	1.0k	Bulk Pack	6.8k	**31149** ▲●	47k	Bulk Pack	330k	Bulk Pack	2.2M
Bulk Pack	3.6	Bulk Pack	24	Bulk Pack	160	Bulk Pack	1.1k	Bulk Pack	7.5k	Bulk Pack	51k	Bulk Pack	360k	Bulk Pack	2.4M
Bulk Pack	3.9	Bulk Pack	27	Bulk Pack	180	**29735** ●	1.2k	Bulk Pack	8.2k	Bulk Pack	56k	Bulk Pack	390k	Bulk Pack	2.7M
Bulk Pack	4.3	Bulk Pack	30	Bulk Pack	200	Bulk Pack	1.3k	Bulk Pack	9.1k	Bulk Pack	62k	Bulk Pack	430k	Bulk Pack	3.0M
Bulk Pack	4.7	Bulk Pack	33	**30470** ▲✕	220	**29760** ▲●	1.5k	**29911** ▲✕	10k	Bulk Pack	68k	**31202** ▲●	470k	Bulk Pack	3.3M
Bulk Pack	5.1	Bulk Pack	36	Bulk Pack	240	Bulk Pack	1.6k	Bulk Pack	11k	Bulk Pack	75k	Bulk Pack	510k	Bulk Pack	3.6M
Bulk Pack	5.6	Bulk Pack	39	**30605** ▲●	270	Bulk Pack	1.8k	Bulk Pack	12k	Bulk Pack	82k	Bulk Pack	560k	Bulk Pack	3.9M
Bulk Pack	6.2	Bulk Pack	43	Bulk Pack	300	**30277** ▲●	2.0k	Bulk Pack	13k	Bulk Pack	91k	Bulk Pack	620k	Bulk Pack	4.7M
Bulk Pack	6.8	**31106** ▲●	47	**30867** ▲●	330	**30314** ▲●	2.2k	**30146** ▲●	15k	**29997** ▲✕	100k	Bulk Pack	680k	Bulk Pack	5.1M
Bulk Pack	7.5	Bulk Pack	51	Bulk Pack	360	Bulk Pack	2.4k	Bulk Pack	16k	Bulk Pack	110k	Bulk Pack	750k	Bulk Pack	5.6M
Bulk Pack	8.2	Bulk Pack	56	**30963** ●	390	**30390** ▲●	2.7k	Bulk Pack	18k	Bulk Pack	120k	Bulk Pack	820k	Bulk Pack	6.2M
Bulk Pack	9.1	Bulk Pack	62	Bulk Pack	430	Bulk Pack	3.0k	Bulk Pack ●	20k	Bulk Pack	130k	Bulk Pack	910k	Bulk Pack	6.8M
29882 ▲●	10	Bulk Pack	68	**31165** ▲●	470	**30672** ▲●	3.3k	**30453** ▲●	22k	Bulk Pack	150k	**29698** ▲●	1.0M	Bulk Pack	7.5M
Bulk Pack	11	Bulk Pack	75	Bulk Pack	510	Bulk Pack	3.6k	Bulk Pack	24k	Bulk Pack	160k	Bulk Pack	1.1M	Bulk Pack	8.2M
Bulk Pack	12	Bulk Pack	82	**31376**	560	Bulk Pack	3.9k	Bulk Pack	27k	Bulk Pack	180k	Bulk Pack	1.2M	Bulk Pack	9.1M
Bulk Pack	13	Bulk Pack	91	Bulk Pack	620	Bulk Pack	4.3k	Bulk Pack	30k	Bulk Pack	200k	Bulk Pack	1.3M	**29938** ▲●	10M

1/8 & 1/2-Watt Carbon Film Resistors (±5%)

Any 1/8 or 1/2-Watt Resistor value (above) can be special ordered – 1000 pc minimum
• 1/8-W – $12.95/k (bulk) • 1/2-W – $15.95/k (bulk)

1/8-Watt Carbon Film Resistor (±5%) Assortments

Part No.	Cross Ref. No.	Values included	Description (see chart below)	Pricing 1	Pricing 10
108302	ASST1830	✗ ✔	10 each of 24 values marked by ✗ and 50 each of 6 values marked below by # (540 pcs.)	$12.95	$11.49
108290	ASST1827	✔	100 each of 27 values marked by ✓ (2,700 pcs.)	29.95	26.95
108329	CAB182R	— —	1/8-watt resistor component cabinet kit – 30 values (540 pcs.) see page 65	24.95	22.49

1/8 & 1/2-Watt Resistor Assortments Value Chart (Ohms)

10 ✓✗	150 ✓✗	330 ✓✗	680 ✓✗	2.0k ✓✗	3.3k ✓✗	5.6k ✓✗	15k ✓✗	33k ✓✗	470k ✓✗
47 ✓✗	220 ✓#	390 ✗	1.0k ✓#	2.2k ✓✗	4.7k ✓#	6.8k ✗	22k ✓✗	47k ✓✗	1.0M ✓✗
100 ✓#	270 ✓✗	470 ✓✗	1.5k ✓✗	2.7k ✓✗	5.1k ✓✗	10k ✓#	27k ✗	100k ✓#	10M ✓✗

(✓), (✗), (#) symbols indicate Resistor values included in Assortments above and below.

Any 1/8 or 1/2-Watt Resistor value (above) can be special ordered – 1000 pc minimum
• 1/8-W – $12.95/k (bulk) • 1/2-W – $15.95/k (bulk)

1/2-Watt Carbon Film Resistor (±5%) Assortments

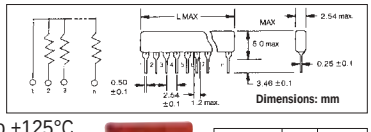
Part No.	Cross Ref. No.	Values Included	Description (see chart above)	Pricing 1	Pricing 10
107852	ASST1230	✗ ✔	10 each of 24 values marked by ✗ and 50 each of 6 values marked by # (540 pcs.)	$14.95	$13.49
107844	ASST1227	✔	100 each of 27 values marked by ✓ (2,700 pcs.)	34.95	31.49
107836	ASST1270	—	5 each of 70 values (every other value from 10 ohm-5.6M ohm)(350 pcs.) (see chart above)	10.95	9.95
107879	CAB12R	—	1/2-watt resistor component cabinet kit – 30 values (540 pcs.) (see page 65)	29.95	26.95

Resistor Networks (±2%)

Single-In-Line "SIP" Resistor Networks

8 and 10-Pin Bussed (125mW/Resistor) ±2%

Features (8BRN/10BRN):
- **8-pin package (7 resistors) = 8BRN**
  10-pin package (9 resistors) = 10BRN
- Rated power per resistor at 70°C: 125mW/ resistor
- Operating temperature range: -55°C to +125°C
- Resistance temperature coefficient: 200ppm/°C
- Max. working voltage: 100V or rated power x resistance, whichever is smaller
- Insulation resistance: 10,000MΩ min. at 100V
- Solderability: per MIL-R-83401
- Low profile 5mm (.200" body height)
- Low profile is compatible with DIPs
- Cermet thick film construction





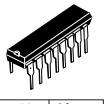
✳ 10 piece minimum

Pricing per each			
1	10	100	1000
✳	$.26	$.22	$.16
Pricing for P/N 97826			
✳	$.22	$.19	$.13

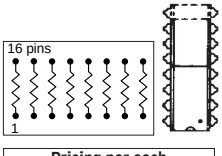
Part No.	Pins	Ohms
97826	8	10k
97851	10	330
97869	10	470
97877	10	1.0k
97893	10	2.2k
24660	10	4.7k
24643	10	10k
98087	10	47k
98095	10	100k

Dual-In-Line "DIP" Resistor Networks

16-Pin Isolated (140mW/Resistor) ±2%



Features (16IRN):
- Maximum operating voltage: 100V • Tolerance: ±2%
- Temperature coefficient: ±100ppm/°C
- Operating temperature: -55°C to +125°C
- Insulation resistance: 10,000MΩ min.
- Lead solderability/solvent resistance: meets requirements of MIL-R-83401
- Power rating at 70°C: 2.25 watts
- Compatible with automatic insertion equipment
- Copper leads for excellent heat dissipation



Pricing per each			
1	10	100	1000
$.49	$.43	$.37	$.31

Part No.	Ohms
164005	33
108556	100
108564	220
108572	330
108581	470
108599	1.0k
108610	4.7k
108628	10k
108644	100k

SIP and DIP Resistor Network Cross Reference Chart

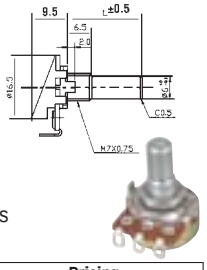
Jameco	CTS	A – B	Bourns	Dale	Beckman	Sprague	MEPCO
8BRN…	770-81-R…	708A…	4608X-101…	CSC08A01…	L08-1-R…	356CF… X2PD	9S08… GL002
10BRN…	770-101-R…	710A…	4610X-101…	CSC10A01…	L10-1-R…	256CX … X2PD	9S10… GL002
16IRN…	761-3-R…	316B…	4116R-001…	MDP16-03…	898-3-R…	916C… X5SR	D16H… 12-J

Part Number Color Code
New Sale Refurbished Closeout

0.2-Watt Linear Taper (±20%)

- Number of detents: 10
- Shaft diameter: 0.235"
- Shaft length: 0.605"
- Insulation resistance: 100MΩ @ 500VDC
- Mounting hole: .27"
- Max. panel thickness: 0.15"
- Max. operating voltage: 150VAC
- Rotational life: 15,000 cycles

Includes: Mounting hardware



Part No.	Mfr. Cross Ref. No.	Ohms	Pricing 1	10	100	500
163563	PMD401	10k	$1.65	$1.32	$.99	$.69

1/4-Watt Miniature Linear (±20%)

X201 (19/32") Vertical Mount

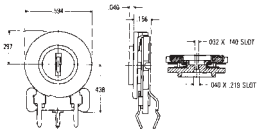
- 15mm thick
- Voltage rating: 350 VDC
- Reliable CTS composition resistance element
- Power rating: below 5kΩ – 1/4 watt @ 40°C; 5kΩ & above – 1/4 watt @ 55°C
- Total rotation: 260° ±5°



94692

Cross Reference Chart

Equivalent to:	
CTS	X201R
Bourns	3355X
PIHER	PT15



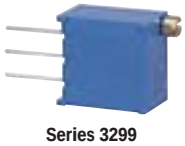
Part Number	Mfr. Cross Ref. No.	Ohms	Pricing 1	10	100	500
94692	X201R1K	1k	$.45	$.35	$.31	$.28
35502	X201R252B	2.5k	.45	.35	.31	.28
94705	X201R5K	5k	.39	.35	.32	.28
94713	X201R10K	10k	.45	.35	.31	.28
172136	X201R25K	25k	.45	.40	.36	.32
94721	X201R50K	50k	.45	.35	.31	.28
94730	X201R100K	100k	.45	.35	.31	.28

Multi-Turn (±10%)

- Resistance tolerance: ±10%
- Insulation resistance: (500VDC) 1,000MΩ min.

Series 3299:

- 25-turn; cermet type
- Absolute minimum resistance: 2Ω or 1% max.
- Load life: 200 cycles, 0.5W



Series 3299

Series 3540:

- 10-turn; wirewound
- Absolute minimum resistance: 1Ω or 0.1% max.
- Load life: 1,000 hours, 2W



Series 3540

Part Number	Product Number	Ohms	Pricing 1	10	50
183556	3299W-102	1k	$2.95	$2.75	$2.49
183564	3299W-103	10k	2.95	2.75	2.49
183572	3299W-104	100k	2.95	2.75	2.49
183548	354OS-1-502	5k	13.49	11.95	10.95
183521	354OS-1-103	10k	13.49	11.95	10.95

Phone 1-800-831-4242
Online www.Jameco.com
Order Anytime 24x7x365
Fax 1-800-237-6948

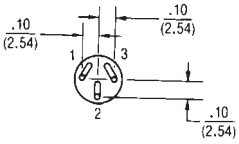
1/2-Watt, 1/4" Round, Cermet (±10%)

SALE

- Sealed to withstand wave soldering and immersion cleaning process
- Extended temperature range: -55°C to +150°C • TO-5 grid
- Top adjustment
- Terminals: solderable pins

Cross Reference Chart

Equivalent to:	
Beckman	82M
Bourns	3329P
Mepcopal	8050
MEC	471
Murata	3321P
Spectrol	62-3
VRN	171
Weston	567





95484

Part No.	Mfr. Cross Ref. No.	Ohms	Pricing 1	10	100	500
95441	3329P1K	1k	$1.99	$1.59	$1.19	$.84
95450	3329P5K	5k	1.69	1.39	1.27	1.15
96719	3329P10K	10k	1.79	1.49	1.29	1.09
95484	3329P100K	100k	1.79	1.49	1.19	.99

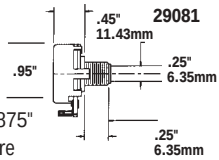
1/2-Watt Linear Taper (±10%)

- Temperature range: -55°C to +125°C
- Non-rotational key
- Non-slotted shaft end
- Mounting hole: 0.3125"
- Shaft diameter: 0.25"
- Shaft length: 0.5625"
- Max. panel thickness: 0.1875"

Includes: Mounting hardware



29081



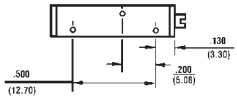
Part Number	Mfr. Cross Ref. No.	Ohms	Pricing 1	10	100	500
29049	P1K	1k	$.99	$.79	$.65	$.55
29196	P5K	5k	.99	.79	.65	.55
29081	P10K	10k	.99	.79	.65	.55
29102	P100K	100k	.99	.79	.65	.55
29065	P1MEG	1M	.99	.79	.65	.55

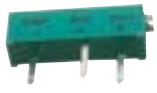
3/4-Watt, 3/4" Rectangular 15-Turn Linear Cermet (±10%)

- PC pins: .100" grid (2.54mm)
- Side adjusting
- Sealed to guard against contaminants
- Temp. range: -55°C to +125°C

Cross Reference Chart

Equivalent to:	
Beckman	89PR
Bourns	3006P
Mepcopal	8034
Murata	2101P
Spectrol	43P
VRN	961-20
Weston	830P





41911

Part Number	Mfr. Cross Ref. No.	Ohms	Pricing 1	10	100	500
181972	43P201	200	$1.15	$.85	$.65	$.49
41937	43P500	500	1.15	.99	.85	.69
41785	43P1K	1k	1.25	1.15	.89	.69
41865	43P2K	2k	1.15	.99	.85	.69
41890	43P5K	5k	1.15	.99	.85	.69
41822	43P10K	10k	1.15	.95	.75	.59
41873	43P20K	20k	1.15	.99	.85	.69
41911	43P50K	50k	1.15	.99	.85	.69
41849	43P100K	100k	1.15	.95	.75	.59
63001	43P200K	200k	.89	.68	.55	.45
41953	43P500K	500k	1.15	.99	.85	.69
41806	43P1MEG	1M	1.15	.99	.85	.69

2-Watt Linear Taper (±20%)

- Temp. range: -10°C to +70°C
- Shaft diameter: 0.25" • Length: 0.825"
- Mounting hole: 0.375" • See knobs, pg 97
- Non-rotational key
- Base length: 0.25"

Includes: Mounting hardware



123959

Part No.	Mfr. Cross Ref. No.	Ohms	Pricing 1	10	100	500
123959	PT1K	1k	$3.29	$2.99	$2.65	$2.39
123967	PT5K	5k	3.29	2.99	2.65	2.39

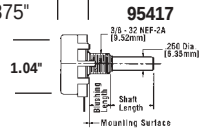
2-Watt Linear Taper (±10%)

- 2W @ 70°C ambient
- Conductive plastic element
- Military No.: RV4N-AYSD
- Temp. range: -55° to +120°C
- Non-rotational key
- Shaft: dia.: 0.25"; length: 0.875"
- Mounting hole: 0.375"
- Max. panel thickness: 0.25"
- See knobs page 97

Includes: Mounting hardware



95417



Part No.	Product No.	Ohms	1	10	50	100
183610	53C3-500	500	$7.95	$6.95	$5.95	$5.25
13936	CMU1021	1k	7.95	6.95	5.95	5.25
13995	CMU5021	5k	7.95	6.95	5.95	5.25
13952	CMU1031	10k	7.95	6.95	5.95	5.25
95417	CMU5031	50k	7.95	6.95	5.95	5.25
13979	CMU1041	100k	7.95	6.95	5.95	5.25

5-Watt Linear Taper Wire Wound (±20%)

- Temperature range: -10˚C to 70˚C
- Shaft diameter: 0.23" (6mm)
- Shaft length: 0.67", except P/N 140521 (0.25")
- Mounting hole: 0.32"
- Max. panel thickness: 0.1" • Non-rotational key

Includes: Mounting hardware



140513

Part Number	Mfr. Cross Ref. No.	Ohms	Pricing 1	10	50	100
140513	PW5B100	100	$2.99	$2.69	$2.39	$2.15
140521	PW5B500	500	2.95	2.65	2.39	2.15

1/2-Watt, 3/8" Square, Single-Turn Cermet (±10%)

- 1/2 watt linear taper @ 70°C
- PC pins: .100" grid (2.54mm)
- Sealed to guard against contaminants
- Pin Spacing: 0.1"
- Top adjusting
- Temp. range: -55°C to +125°C

† Dimension A = .20"

Cross Reference Chart

Equivalent to:	
Beckman	72PR
Bourns	3386P
Mepcopal	8038
Murata	3104P
Spectrol	63P
VRN	780-12P
Weston	840P



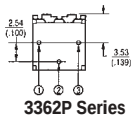
42964

Part Number	Mfr. Cross Ref. No.	Ohms	Pricing 1	10	100	500
43123	63P500	500	$.79	$.65	$.55	$.45
42964	63P1K	1k	.79	.65	.55	.45
43043	63P2K	2k	.79	.65	.55	.45
43078	63P5K	5k	.79	.65	.55	.45
43001	63P10K	10k	.79	.65	.55	.45
43051	63P20K	20k	.79	.65	.55	.45
43107	63P50K	50k	.79	.65	.55	.45
43027	63P100K	100k	.79	.65	.55	.45
43060	63P300K †	300k	.79	.63	.49	.35
63212	63P500K	500k	.79	.65	.55	.45
42981	63P1MEG	1M	.79	.65	.55	.45
105216	63P2MEG †	2M	.79	.63	.49	.35

1/2-Watt Trimming Potentiometers (±10%)

- Linear taper
- Absolute min. resistance: 1% or 2Ω max.
- Contact resistance variation: 1% or 1Ω max.
- Insulation resistance: 500VDC; 1,000MΩ minimum
- Rotational life: 200 cycles
- Terminals: solderable pins
- Wiper positioning: 50% nominal





Cross Reference Chart

Equivalent to:	
3362P Series	
Murata	PVC6
Vishay	76
3299Y Series	
Spectrol	64Y
Vishay	1248
Murata	PV37W

3362P Series

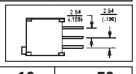
- 1/4" top adjustment angle: 240˚ nominal
- 189341: Manufacturer – Copal

Part No.	Mfr. Cross Ref. No.	Ohms	1	10	100	500
191644	3362P1-200	20	$.69	$.59	$.49	$.39
189341	CT6P-500	50	.69	.59	.49	.39
182810	3362P1-501	500	.69	.53	.33	.23
182828	3362P1-502	5k	.69	.59	.49	.39
182836	3362P1-103	10k	.79	.69	.58	.53
182844	3362P1-204	200k	.69	.59	.49	.39
182852	3362P1-105	1M	.69	.59	.49	.39

3299Y Series

SALE

• 3/8" square, 25-turn potentiometer
• Load Life: 1,000 hours 0.5W @ 70˚C • Wipers set @ CW end



Part No.	Mfr. Cross Ref. No.	Ohms	1	10	50
191417	3299Y501	500	$2.40	$1.80	$1.25
191396	3299Y102	1k	2.40	1.80	1.25
191425	3299Y502	5k	2.40	2.16	1.95
191409	3299Y104	100k	2.40	1.80	1.25

NTC Thermistors



- Typical applications: temperature measurement/control/compensation; power supply fan control; PCB temperature monitoring
- Operating temperature range: -30˚C ~ +130˚C
- Maximum allowable power (@250C): 0.55W
- Thermal dissipation factor: 6.5mW/0C (@250C)
- Resistance value allowable difference: 10%

NEW

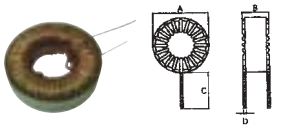
Part No.	Mfr. Cross Ref. No.	Resistance (Ω @ 25˚C)	B Constant (25/50˚C (10%))	Temp. Coef. @ 25˚C (%/˚C)	Pricing 1	10	100	500
207520	NTC-101	100	3100	-3.5	$.59	$.53	$.40	$.33
207511	NTC-201	200	3100	-3.5	.59	.53	.40	.33
207503	NTC-301	300	3100	-3.5	.59	.53	.40	.33
207491	NTC-501	500	3100	-3.5	.59	.53	.40	.33
207482	NTC-102	1k	3800	-4.3	.59	.53	.40	.33
207474	NTC-202	2k	3800	-4.3	.59	.53	.40	.33
207466	NTC-302	3k	3900	-4.4	.59	.53	.40	.33
207458	NTC-402	4k	3900	-4.4	.59	.53	.40	.33
207440	NTC-502	5k	3900	-4.4	.59	.53	.40	.33
207036	NTC-103	10k	4100	-4.6	.59	.53	.40	.33
207028	NTC-153	15k	4100	-4.6	.59	.53	.40	.33
207010	NTC-203	20k	4200	-4.7	.59	.53	.40	.33
207001	NTC-503	50k	4200	-4.7	.59	.53	.40	.33
206990	NTC-104	100k	4400	-4.9	.59	.53	.40	.33
206981	NTC-204	200k	4500	-5.1	.59	.53	.40	.33

High Current Toroid Inductors

5700 Series

NEW

- Low radiation
- Low core loss
- High current capacity
- Size: A = 22.22mm max.; B = 11.09mm max.; C = 15.0±1.0mm; D = 1.2±0.5mm



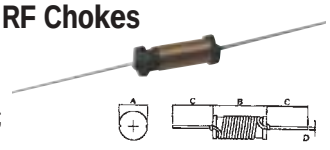
Part No.	L (µH)	IDC max. (A)	L min. @ IDC	1	50	100	250
208258	10	11.0	5	$2.99	$2.69	$2.39	$2.19
208266	25	5.5	12	2.99	2.69	2.39	2.19
208311	50	9.5	25	3.99	3.59	3.19	2.89
208303	75	5.0	40	3.39	2.99	2.69	2.39
208274	125	2.75	70	2.99	2.69	2.39	2.19
208320	150	4.75	85	3.99	3.59	3.19	2.89
208282	275	2.0	150	3.39	2.99	2.69	2.39
208291	450	1.5	250	3.39	2.99	2.69	2.39

Axial Leaded RF Chokes

4600 Series

NEW

- Inductive Tolerance: 10%
- Test Frequency: 7.9MHz
- Size: A = 6.8mm max.; B = 19.0mm max.; C = 25.0±2.0mm; D = 0.65±0.5mm



Part No.	L (µH)	Q (min.)	Res. Freq Min. (MHz)	DCR Max. (µ)	Max. DC Current (mA)	Pricing 1	100	250
208063	1.0	60	190	.050	2000	$.89	$.69	$.49
208071	1.5	58	149	.093	1800	.89	.69	.49
208080	2.4	56	120	.190	1500	.89	.69	.49
208098	3.9	60	93	.450	1000	.89	.69	.49
208101	5.5	57	80	.670	850	.89	.69	.49
208119	6.2	57	76	.830	700	.89	.69	.49
208127	8.2	57	65	1.2	600	.89	.69	.49
208135	10	36	61	1.5	500	.89	.69	.49

Epoxy Conformal Coated Chokes



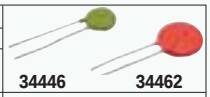
- Operating temperature: -25°C to +85°C
- Tolerance: 5%
- Size: A = 3.2mm max.; B = 7.0mm max.; C = 0.48±0.5mm (except P/N 208143 0.50±.05mm); D = 63±3mm

NEW

Part No.	L (µH)	Q (min.)	Test. Freq (MHz)	Res. Freq Min. (MHz)	DCR Max. (µ)	Max. DC Current (mA)	Pricing 1	100	250
208143	10	60	7.96	28.7	1.56	670	$.49	$.39	$.29
208151	27	50	2.52	10.2	2.39	410	.49	.39	.29
208160	33	50	2.52	8.4	2.71	380	.49	.39	.29
208178	47	50	2.52	6.9	3.3	330	.49	.39	.29
208186	82	45	2.52	5.4	4.62	240	.49	.39	.29
208194	100	45	2.52	5.0	4.98	240	.49	.39	.29
208207	220	45	0.796	3.3	9.23	180	.49	.39	.29
208215	330	45	0.796	2.7	13.2	140	.49	.39	.29
208223	470	45	0.796	2.2	21.4	120	.49	.39	.29
208231	820	45	0.796	1.7	28.4	90	.49	.39	.29
208240	1000	45	0.796	1.5	31.3	80	.49	.39	.29

LA Series Varistors (Radial Lead)

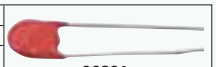
- AC power line applications • Power supplies
- UL recognized as "transient voltage surge suppressors"
- UL recognized as "across-the-line components"
- High energy absorption



LA Series Part No.	Mfr. Cross Ref. No.	Size Disc. Dia. (mm)	Max. Ratings (+85°C) Continuous RMS Volt. $V_{m(ac)}$ Volts	Continuous DC Volt. $V_{m(dc)}$ Volts	Transient Energy (10/1000µs) W_{tm} Joules	Characteristics at 25°C Max Clamping Volt. @ Ip Value Current (8/20µs) V Volts	Ip=2.0A Amps	Pricing 1	10	100	1000
34454	V130LA2	7	130	175	11	340	10	$.27	$.25	$.22	$.19
34446	V130LA10A	14	130	175	38	340	50	.55	.49	.45	.39
34471	V250LA20A	14	250	330	72	650	50	.58	.52	.47	.42
34462	V130LA20A	20	130	175	70	340	100	.75	.69	.62	.56

ZA Series Varistors (Radial Lead)

- Low DC voltage applications
- UL recognized as "transient voltage surge suppressors"
- Used for highly sensitive devices
- Low transient energy
- Computer equipment
- Printed circuit board designs
- Alarm systems



ZA Series Part No.	Mfr. Cross Ref. No.	Size Disc. Dia. (mm)	Characteristics at 25°C Varistor Voltage @ 1 mA DC Test Current Min. Volts	$V_{N(dc)}$ Volts	Max. Volts	Max. Clamping Voltage @ Ip Value Current (8/20µs) V Volts	Ip=2.0A Amps	Pricing 1	10	100	1000
96891	V8ZA1	7	6.0	8.2	11.0	22	5	$.20	$.18	$.16	$.15
190449	V18ZA1	7	16.0	18.0	20.0	35	2.5	.29	.25	.22	.19
96920	V22ZA1	7	20.0	22.0	24.0	48	1.0	.28	.25	.23	.19

Surface Mount

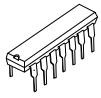
Part Number Color Code
New Sale Refurbished Closeout

MOTOROLA SPRAGUE Siliconix

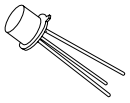
Call for pricing on quantities over 5000 – we carry major manufacturers.

Any transistor may be supplied in ammo style tape by special order – 1000 piece min.

BOCA Semiconductor Corporation
National Semiconductor Texas Instruments


14-pin DIP Case

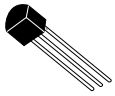

TO-3 Case

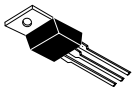

TO-18 Case

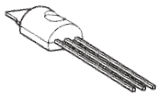


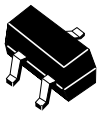
TO-39 Case

TO-72 Case


TO-92 Case


TO-220 Case


TO-237 Case


SOT-23 Case

Part Number	Mfr. Cross Ref. No.	Case	Description	Vceo	Min. h_{FE} @ Ic	Min. f_t (MHz)	NTE/ ECG No.	Pricing 1	10	100	1000
26462	MPSA06	TO-92	NPN medium power	30	50 @ 10mA	125 (Max.)	287	*	$.14	$.12	$.11
26489	MPSA13	TO-92	NPN power Darlington	30	5k @ 10mA	125	46	*	.11	.10	.09
33021	TIP29A	TO-220	NPN power transistor	60	15 @ 1A	0.5	291	.49	.45	.41	.37
33030	TIP30A	TO-220	PNP power transistor	60	15 @ 1A	0.5	292	.54	.50	.45	.37
33048	TIP31A	TO-220	NPN power transistor	60	10 @ 3A	0.5	291	.49	.39	.35	.29
33064	TIP32A	TO-220	PNP power transistor	60	10 @ 3A	0.5	292	.49	.44	.39	.36
181841	TIP32C	TO-220	PNP epitaxial silicon transistor	100	10 @ 3A	3.0	—	.56	.50	.47	.40
33081	TIP41A	TO-220	NPN power transistor	60	15 @ 3A	1	331	.59	.53	.48	.44
33101	TIP42A	TO-220	PNP power transistor	60	15 @ 3A	1	332	.59	.49	.45	.39
139580	TIP42C	TO-220	PNP epitaxial silicon transistor	100	15 @ 3A	3.0 (Max.)	—	.66	.59	.53	.48
120221	BPW77	TO-18	NPN photo transistor w/ lens	70	N/A	0.11	—	1.95	1.75	1.49	1.25
32977	TIP102	TO-220	NPN power Darlington	100	1k @ 3A	—	2343	.65	.59	.53	.45
32985	TIP106	TO-220	PNP power Darlington	80	1k @ 3A	—	2344	.59	.54	.49	.39
32993	TIP120	TO-220	NPN power Darlington	60	1k @ 3A	—	261	.65	.55	.45	.40
120416	TIP122	TO-220	NPN power Darlington	100	1k @ 3A	—	261	.59	.49	.45	.39
33013	TIP125	TO-220	PNP power Darlington	60	1k @ 3A	—	262	.59	.49	.45	.39
194301	2N1711	TO-39	NPN general purpose	35	100 @ 150mA	70	—	.33	.29	.27	.24
194319	2N1893	TO-39	NPN general purpose	80	40 @ 150mA	—	—	.48	.45	.41	.37
194327	2N2102	TO-39	NPN general purpose	65	40 @ 150mA	—	—	.59	.53	.48	.43
38228	2N2219A	TO-39	NPN general purpose	40	100 @ 150mA	300	128	.59	.49	.45	.39
28628	PN2222	TO-92	NPN general purpose	30	100 @ 150mA	250	123AP	*	.12	.10	.09
94941	PN222SM✦	SOT-23	NPN general purpose	30	100 @ 150mA	250	123AP	#	#	.24	.21
38236	2N2222A	TO-18	NPN general purpose	40	100 @ 150mA	250	123A	.39	.35	.29	.25
26446	MPQ2222	14-pin DIP	NPN gen. purp. small signal/quad	40	100 @ 150mA	200	2321	2.25	1.95	1.79	1.65
194351	2N2484	TO-18	NPN general purpose	60	250 @ 1mA	80 (Typ.)	—	.52	.47	.42	.38
194343	2N2369A	TO-18	NPN general purpose	15	40 @ 10mA	500	—	.39	.35	.31	.31
194378	2N2905A	TO-39	PNP general purpose	60	100 @ 150mA	200	—	.55	.50	.45	.40
28644	PN2907	TO-92	PNP general purpose	40	100 @ 150mA	200	159	.13	.12	.11	.08
38279	2N2907A	TO-18	PNP general purpose	60	100 @ 150mA	200	129P	.39	.35	.29	.25
94959	PN2907SM✦	SOT-23	PNP general purpose	40	100 @ 150mA	200	159	#	#	.15	.12
26454	MPQ2907	14-pin DIP	PNP gen. purp. small signal/quad	40	100 @ 150mA	200	2322	1.49	1.34	1.19	1.09
25831	MJE2955T	TO-220	PNP power transistor	60	20 @ 4A	2	332	.59	.54	.49	.39
38295	2N3053	TO-39	NPN general purpose	40	25 @ 150mA	100	129	.65	.59	.52	.46
25857	MJE3055T	TO-220	NPN power transistor	60	20 @ 4A	2	331	.65	.55	.47	.43
38308	2N3055	TO-3	NPN power bipolar, epitaxial base	60	15 @ 10A	0.01	130	.89	.81	.71	.65
194407	2N3251A	TO-18	PNP general purpose	60	100 @ 10mA	—	—	.36	.32	.29	.26
194423	2N3440	TO-39	NPN general purpose	250	40 @ 20mA	15	—	.51	.46	.41	.39
194415	2N3439	TO-39	NPN general purpose	350	40 @ 20mA	15	—	.55	.50	.45	.45
194431	2N3501	TO-39	NPN general purpose	150	100 @ 150mA	—	—	1.45	1.29	1.15	1.05
194440	2N3637	TO-39	PNP general purpose	175	100 @ 50mA	—	—	1.09	.99	.89	.79
194458	2N3700	TO-18	NPN general purpose	80	100 @ 150mA	100 (Typ.)	—	.59	.54	.46	.41
38324	2N3772	TO-3	NPN power bipolar, epitaxial base	40	15 @ 4A	0.05	181	1.49	1.35	1.19	.99
140151	2N3773	TO-3	NPN power audio	140	15 @ 8A	—	284	2.49	1.99	1.49	1.26
38359	2N3904	TO-92	NPN general purpose	40	100 @ 10mA	300	123AP	*	.08	.06	.045
94967	2N3904SM✦	SOT-23	NPN general purpose	40	100 @ 10mA	300	123AP	#	#	.24	.21
38375	2N3906	TO-92	PNP general purpose	40	100 @ 10mA	250	159	*	.07	.05	.045
94975	2N3906SM✦	SOT-23	PNP general purpose	40	100 @ 10mA	250	159	#	#	.23	.21
194466	2N4033	TO-39	PNP general purpose	80	100 @ 100mA	150	—	.75	.68	.61	.55
194474	2N4036	TO-39	PNP general purpose	65	40 @ 150mA	60	—	.79	.71	.64	.58
194482	2N4235	TO-39	PNP general purpose	60	30 @ 250mA	—	—	1.59	1.43	1.29	1.15
194491	2N4238	TO-39	NPN general purpose	80	30 @ 250mA	—	—	1.95	1.75	1.59	1.45
38421	2N4401	TO-92	NPN general purpose	40	100 @ 150mA	250	123AP	*	.07	.06	.05
38447	2N4403	TO-92	PNP general purpose	40	100 @ 150mA	200	159	*	.08	.07	.05
194520	2N5038	TO-3	NPN power transistor	90	50 @ 2A	—	—	3.79	3.39	2.99	2.69

✦ Surface Mount * Prepackaged: please order in increments of 10, 100 or 1000 # Prepackaged: please order in increments of 100 or 1000

We'll Send It Today!

Don't worry about backorders. Over 99% of our products are in stock! Just place your order by 6PM EST for same business day shipment.

Call for pricing on quantities over 5000 – we carry major manufacturers.

MOTOROLA SPRAGUE Siliconix SALE National Semiconductor Texas Instruments BOCA Semiconductor Corporation

Transistors (Continued)

Any transistor may be supplied in ammo style tape by special order – 1000 piece min.

Part Number	Mfr. Cross Ref. No.	Case	Description	Vceo	Min. h_{FE} @ Ic	Typ. or Max f_t (MHz)	NTE/ ECG NO.	Pricing 1	10	100	1000
140388	2N5109	TO-39	NPN RF broad band transistor	20	40 @ 50mA	1200	278	$1.45	$1.29	$1.17	$1.05
38480	PN5179	TO-92	NPN high frequency transistor	15	25 @ 3mA	2000	229	1.19	.95	.71	.49
140373	2N5179	TO-72	NPN low noise UHF transistor	12	25 @ 3mA	900	316	1.09	.99	.89	.79
194538	2N5320	TO-39	NPN general purpose	75	30 @ 500mA	—	—	.69	.64	.57	.52
194546	2N5415	TO-39	PNP general purpose	200	30 @ 50mA	—	—	.63	.57	.51	.46
194554	2N5416	TO-39	PNP general purpose	300	30 @ 50mA	—	—	.79	.72	.64	.58
194562	2N5679	TO-39	PNP general purpose	100	40 @ 250mA	—	—	.89	.79	.72	.65
194571	2N6042	TO-220	PNP power transistor	100	1000 @ 3A	—	—	.65	.59	.51	.49
194589	2N6045	TO-220	NPN power transistor	100	1000 @ 3A	—	—	.99	.89	.80	.72
194597	2N6052	TO-3	PNP power transistor	100	750 @ 6A	—	—	2.95	2.66	2.39	2.15
194600	2N6059	TO-3	NPN power transistor	100	750 @ 6A	—	—	1.70	1.60	1.45	1.29
194618	2N6547	TO-3	NPN power transistor	400	12 @ 5A	—	—	4.99	4.49	3.99	3.99
194626	2N6678	TO-3	NPN power transistor	400	8 @ 15A	—	—	6.25	5.63	5.06	4.56
140134	2N6725	TO-237	NPN Darlington	50	25000 @ 200mA	100	48	.60	.55	.49	.44

J-FET Transistors

Part Number	Mfr. Cross Ref. No.	Case	Description	BV_{GS} (V)min @ IGuA	I_{DSS} (max) (mA) @ V_{DS}	VP (max) @ V_{DS}	NTE/ ECG No.	Pricing 1	10	100	1000
26403	MPF102	TO-92	JFET (N Channel) RF, VHF, UHF, amp	25 @ 1	20 @ 15	4 @ 0.5	451	$.39	$.35	$.29	$.25
140142	J176	TO-92	JFET (P Channel)	30 @ 1	2 @ 25	4 @ -15	—	.59	.55	.49	.45
38341	2N3823	TO-72	JFET (N Channel) VHF, amp	30 @ 1	20 @ 15	8 @ 0.5	452	.79	.69	.59	.55
38527	2N5951	TO-92	JFET (N Channel) RF, VHF, UHF, amp	30 @ 1	13 @ 15	5 @ 100	—	1.05	.95	.85	.75
119423	2N7000	TO-92	FET TMOS (N Channel)	—	1 @ 48	—	491	.35	.29	.25	.22

SAMSUNG

Darlington Power

Part No.	Product No.	Case	Desc.	Vceo	Min. h_{FE} @Ic	1	10	100	1000
179240	TIP102-SAM	TO-220	NPN	100	1000 @ 3A	$.69	$.62	$.56	$.49
179258	TIP107-SAM	TO-220	PNP	-100	1000 @ 3A	.75	.69	.59	.49
179291	TIP120-SAM	TO-220	NPN	60	1000 @ 3A	.58	.52	.47	.42
179303	TIP122-SAM	TO-220	NPN	100	1000 @ 3A	.62	.56	.49	.42
179311	TIP125-SAM	TO-220	PNP	-60	1000 @ 3A	.57	.53	.48	.40
179320	TIP127-SAM	TO-220	PNP	-100	1000 @ 3A	.55	.49	.45	.41

Small-Signal General-Purpose

Part No.	Product No.	Case	Desc.	Vceo	Min. h_{FE} @Ic (mA)	1	10	100	1000
178597	2N3904-FSC	TO-92	NPN	40	100 @ 10	✳	$.09	$.08	$.07
178618	2N3906-FSC	TO-92	PNP	-40	100 @ 10	✳	.09	.08	.07
178634	2N4401-FSC	TO-92	NPN	40	100 @ 150	✳	.10	.08	.06
178722	KSP2222A-FSC	TO-92	NPN	40	100 @ 150	✳	.12	.10	.08

✳ Prepackaged: please order in increments of 10, 100 or 1000

Small-Signal High-Voltage

Part No.	Product No.	Case	Desc.	Vceo	Min. h_{FE}@Ic (mA)	1	10	100	1000
178546	MPSA42	TO-92	NPN	300	40 @ 10	$.22	$.19	$.15	$.12




For our selection of Heat Sinks, see page 39




Small-Signal General-Purpose

Part No.	Product No.	Case	Desc.	Vceo	Min. h_{FE}@Ic (mA)	1	10	100	1000
178511	PN2222A	TO-92	NPN	40	100 @ 150	✳	$.09	$.06	$.04
178520	PN2907A	TO-92	PNP	-60	100 @ 150	✳	.09	.06	.04
178589	2N3904	TO-92	NPN	40	100 @ 10	✳	.09	.07	.045
178600	2N3906	TO-92	PNP	-40	100 @ 10	✳	.09	.07	.045

✳ Prepackaged: please order in increments of 10, 100 or 1000

SAMSUNG

Power

Part No.	Product No.	Case	Desc.	Vceo	Min. h_{FE}@Ic	1	10	100	1000
179354	TIP31C-SAM	TO-220	NPN	100	10 @ 3A	$.58	$.52	$.47	$.39
179371	TIP41C-SAM	TO-220	NPN	100	15 @ 3A	.65	.53	.45	.39
179389	TIP42C-SAM	TO-220	PNP	-100	15 @ 3A	.55	.50	.45	.40

SALE

Power

Part Number	Product Number	Case	Intrinsic Standoff ratio	Pk. Pt. Curr. (max)	Valley Pt. Curr. (min)	Pricing 1	10	100	1000
194360	2N2647	TO-18	0.68 (min)	2.0µA	8.0mA	$1.99	$1.79	$1.59	$1.49
194503	2N4870	TO-92	0.56 (min)	5.0µA	2.0mA	1.95	1.75	1.58	1.42
194511	2N4871	TO-92	0.70 (min)	5.0µA	4.0mA	1.77	1.59	1.43	1.29

N-Channel MOSFETs

Part No.	Mfr. Cross Ref. No.	Case	Drain Source Brkdwn Vltg.	Min. On-State DS Current	Pricing 1	10	100	1000
178669	2N7000-FSC	TO-92	60VDC	0.2A	✳	$.12	$.11	$.10
184719	IRF840	TO-220	500VDC	8.0A	1.59	1.43	1.29	1.15

✳ Prepackaged: please order in increments of 10, 100 or 1000

We'll match the advertised price of any like product.

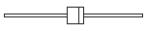
Jameco's Low-Price Guarantee

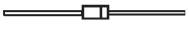
It's that simple!

Part Number Color Code: New Sale Refurbished Closeout


WOG


GBPC


T6L

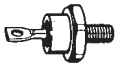

1.5KE/D0-27A/DO-41/ D0-201AD/D0-204AL


W0 type

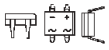

KBP type

4-lead Molded Case
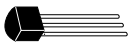

179-01 Case

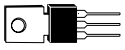

DO-5 Case


4-Pin DIP Case

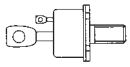

DF


TO-126 Case


TO-92 Case


TO-202 Case


TO-220/AB


TO-65 Case

Full Wave Bridge Rectifiers

Part No.	Mfr. Cross Ref. No.	NTE/ECG	Case	Description	Pricing 1	10	100	1000
103018	W02G	—	WO type	200 PRV, 1A	$.49	$.39	$.29	$.21
102980	W04G	—	WO type	400 PRV, 1A	.49	.45	.39	.35
102998	W06G	—	WO type	600 PRV, 1A	.45	.35	.25	.19
103000	DF01M	5332	4-pin DIP	100 PRV, 1A	.39	.35	.29	.22
103042	DF02M	5332	4-pin DIP	200 PRV, 1A	.31	.27	.21	.18
102971	DF04M	5332	4-pin DIP	400 PRV, 1A	.49	.39	.29	.25
103034	DF06M	5332	4-pin DIP	600 PRV, 1A	.35	.29	.23	.19
145429	KBP02M	—	KBP type	200 PRV, 1.5A	.49	.44	.39	.29
119562	KBP04M	—	KBP type	400 PRV, 1.5A	.49	.45	.36	.31
25574	MDA990-3	5322	179-01	200 PRV, 30A	4.49	3.99	3.39	2.89
25591	MDA990-6	5326	179-01	600 PRV, 30A	4.95	4.49	3.99	3.59

Glass Passivated Bridge Rectifiers

Part No.	Product No.	Case	Description	1	10	100	1000
178001	DF005M	DF	50 PIV, 1.0A	$.35	$.30	$.27	$.24

Glass Passivated Bridge Rectifiers

Part No.	Product No.	Case	Description	1	10	100	1000
179522	GBPC25-10-GSI	GBPC	1000 PIV, 25A	$2.05	$1.85	$1.65	$1.49

Triacs

Part Number	Mfr. Cross Ref. No.	NTE/ECG	Case	Description	Pricing 1	10	100	1000
140425	2N6071A	5603	TO-126	200 PRV, 4A	$.69	$.59	$.49	$.45
31819	SC146B	5633	TO-220	200 PRV, 10A (2N6342)	1.69	1.52	1.37	1.23
31827	SC146M	5637	TO-220	600 PRV, 10A (2N6344)	1.99	1.69	1.49	1.29
139336	Q4015L5	56020	TO-220AB	400 PRV, 15A	1.75	1.59	1.35	.99

Silicon Controlled Rectifiers (SCR)

Part Number	Mfr. Cross Ref. No.	NTE/ECG	Case	Description	Pricing 1	10	100	1000
119802	2N5060	5400	TO-92	25 PRV, 0.8A	$.35	$.32	$.29	$.22
120070	2N5062	5402	TO-92	100 PRV, 0.8A	.49	.45	.39	.35
14736	C106B1	5455	TO-202	200 PRV, 4A (2N6239)*	.59	.52	.40	.36
14752	C122B	5463	TO-220	200 PRV, 8A*	1.05	.95	.85	.75
14761	C122M	5466	TO-220	600 PRV, 8A*	1.35	1.15	.99	.89
140417	2N6507	5554	TO-220AB	400 PRV, 25A	1.59	1.45	1.29	1.15
14859	C38M	5547	TO-65	600 PRV, 35A (2N3899)	5.49	4.99	4.49	3.69

* Isolated

Stud Rectifier

Part No.	Mfr. Cross Ref. No.	NTE/ECG	Case	Description	Pricing 1	10	100	1000
35924	1N1188	5990	DO-5	400 PRV, 35A	$2.89	$2.59	$2.35	$2.10

1.6-Watt TO-220 Heat Sinks

- Use with plastic power semi-conductor devices
- Black anodized aluminum
- 0.8"L x 0.7"W x 0.4"H (P/N 70658)
- 1.2"L x 1.0"W x 0.5"H (P/N 129242)

Thermalloy


129242

Part No.	Product No.	Type	1	10	100	1000
70658	THM6073	TO-220	$.35	$.29	$.25	$.19
129242	THM6106	TO-220	.49	.45	.39	.35

Rectifiers

Part No.	Product No.	Case	Description	1	10	100	1000
177615	1N4001	DO-41	50 PIV @ 1A	*	$.04	$.03	$.02
177623	1N4002	DO-41	100 PIV @ 1A	*	.04	.03	.02
177631	1N4003	DO-41	200 PIV @ 1A	*	.05	.04	.03
177640	1N4004	DO-41	400 PIV @ 1A	*	.04	.03	.02
177674	1N4007	DO-41	1000 PIV @ 1A	*	.04	.03	.02
177691	1N5401	DO-201AD	100 PIV @ 3A	*	.15	.12	.07
177746	1N5408	DO-201AD	1000 PIV @ 3A	*	.16	.14	.10
177754	T6A05L	T6L	50 PIV @ 6A	.31	.28	.25	.23
177762	T6A10L	T6L	100 PIV @ 6A	.29	.26	.22	.19
177771	T6A20L	T6L	200 PIV @ 6A	.26	.23	.21	.19
177818	T6A100L	T6L	1000 PIV @ 6A	.45	.39	.35	.29

* Prepackaged: please order in increments of 10, 100 or 1000

Glass Passivated Ultra Fast Rectifier

Part No.	Product No.	Case	Description	1	10	100	1000
177931	UF4007	DO-41	1000 PIV @ 1A	$.23	$.18	$.15	$.10

Schottky Barrier Rectifiers

Part No.	Product No.	Case	Description	1	10	100	1000
177949	1N5817	DO-204AL	20 PIV @ 1A	$.24	$.22	$.19	$.18
177957	1N5818	DO-204AL	30 PIV @ 1A	.24	.20	.16	.15
177965	1N5819	DO-204AL	40 PIV @ 1A	.24	.22	.19	.18
177973	1N5820	DO-201AD	20 PIV @ 3A	.48	.35	.30	.25
177990	1N5822	DO-201AD	40 PIV @ 3A	.49	.45	.39	.35

Bidirectional Transient Voltage Suppressor

Part No.	Mfr. Cross Ref. No.	NTE/ECG	Case	Description	Pricing 1	10	100	1000
103106	1.5KE15CA	4921	1.5KE	15V @ 1mA 1500W	$.35	$.29	$.26	$.23

Silicon Rectifiers

Part No.	Mfr Cross Ref. No.	NTE/ECG	Case	Description	Pricing 1	10	100	1000
35975	1N4001	116	DO-41	50 PRV, 1A	*	$.03	$.025	$.02
76961	1N4002	116	DO-41	100 PRV, 1A	*	.03	.025	.02
76970	1N4003	116	DO-41	200 PRV, 1A	*	.04	.025	.02
35991	1N4004	116	DO-41	400 PRV, 1A	*	.04	.025	.02
76988	1N4005	116	DO-41	600 PRV, 1A	*	.04	.025	.02
76996	1N4006	125	DO-41	800 PRV, 1A	*	.04	.03	.02
36011	1N4007	125	DO-41	1000 PRV, 1A	*	.04	.03	.025
77075	1N5400	5800	DO-27A	50 PRV, 3A	*	.15	.12	.07
36249	1N5401	5801	DO-27A	100 PRV, 3A	*	.15	.11	.07
77083	1N5402	5802	DO-27A	200 PRV, 3A	*	.15	.11	.07
36265	1N5404	5804	DO-27A	400 PRV, 3A	*	.15	.11	.08
36273	1N5408	5809	DO-27A	1000 PRV, 3A	*	.15	.11	.08

* Prepackaged: please order in increments of 10, 100 or 1000

2-Watt TO-220 Heat Sink

- Black anodized aluminum
- 0.75"L x 0.52"W x 0.38"H

Thermalloy



Part No.	Product No.	Type	1	10	100	1000
158051	THM6078	TO-220	$.39	$.35	$.29	$.25

For a wider selection of Heat Sinks, See page 39

✳ Prepackaged: please order in increments of 10, 100 or 1000

Any Diode can be special order in ammo-style tape – 1000 piece minimum


WOM


TB35


MB35


BR8D


DL-35 Case


1.5KE/DO-7/D0-15/DO-35/DO-41


151247

Bridge Rectifiers

Part No.	Product No.	Case	Description	1	10	100	1000
178124	W005M	WOM	50PIV @ 1.5A	$.49	$.45	$.39	$.29
178132	W01M	WOM	100PIV @ 1.5A	.49	.45	.39	.29
178141	W02M	WOM	200PIV @ 1.5A	.49	.45	.39	.29
178183	BR805D	BR8D	50PIV @ 2A	.59	.53	.47	.43
178204	BR82D	BR8D	200PIV @ 2A	.85	.77	.69	.62
178247	BR810D	BR8D	1000PIV @ 2A	.69	.59	.49	.39
178378	TB2510	TB35	1000PIV @ 25A	3.75	3.35	2.99	2.69
178431	MB358	MB35	800PIV @ 35A	2.95	2.74	2.47	2.22
178503	TB3510	TB35	1000PIV @ 35A	3.29	2.99	2.65	2.29

Transient Voltage Suppressors

SALE

CA: Bidirectional A: Unidirectional

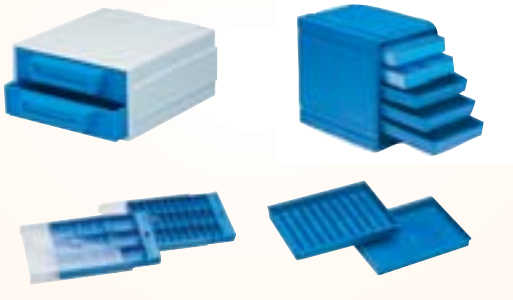
Part No.	Product No.	Case	Min Brkdwn Vltg. (Vbr)	Stand-off Voltage	Pricing 1	10	100	1000
179557	1.5KE18A-GSI	1.5KE	17.1	15.3	$.45	$.41	$.37	$.30
179629	1.5KE43CA-GSI	1.5KE	40.9	36.8	.39	.35	.32	.29
179661	1.5KE6.8CA-GSI	1.5KE	6.45	5.8	.47	.42	.38	.34
179717	P6KE15CA-GSI	DO-15	14.3	12.8	.28	.25	.21	.19
179733	P6KE16CA-GSI	DO-15	15.2	13.3	.29	.25	.22	.20
179741	P6KE18A-GSI	DO-15	17.1	15.3	.21	.19	.17	.16
179768	P6KE200CA-GSI	DO-15	190	171	.35	.29	.25	.22
179792	P6KE33CA-GSI	DO-15	31.4	28.2	.35	.29	.26	.23
179805	P6KE39A-GSI	DO-15	37.1	33.3	✳	.19	.17	.15
179813	P6KE43CA-GSI	DO-15	40.9	36.8	.25	.23	.21	.19
179821	P6KE6.8A-GSI	DO-15	6.45	5.8	✳	.21	.19	.17
179830	P6KE6.8CA-GSI	DO-15	6.45	5.8	.29	.23	.21	.19
179856	P6KE9.1A-GSI	DO-15	8.65	7.78	.25	.21	.19	.17

Zener Diodes (DO-35 Case)

SALE

Part No.	Product No.	Case	Description	1	10	100	1000
179004	1N5225B-VSHY	DO-35	3.0V @ 20mA	✳	$.11	$.10	$.09
179047	1N5231B-VSHY	DO-35	5.1V @ 20mA	✳	.06	.04	.03
179063	1N5234B-VSHY	DO-35	6.2V @ 20mA	✳	.05	.04	.03
179071	1N5239B-VSHY	DO-35	9.1V @ 20mA	✳	.05	.045	.035
179080	1N5241B-VSHY	DO-35	11V @ 20mA	✳	.05	.03	.025
179098	1N5242B-VSHY	DO-35	12V @ 20mA	✳	.04	.03	.025
179101	1N5245B-VSHY	DO-35	15V @ 8.5mA	✳	.04	.03	.025

For our selection of cases
See pg 98



Zener Diodes (DO-41 Case)

SALE

Part No.	Product No.	Case	Description	1	100	500	1000
178765	1N4730A-VSHY	DO-41	3.9V @ 64mA	$.13	$.10	$.08	$.05
178773	1N4732A-VSHY	DO-41	4.7V @ 53mA	.13	.10	.08	.05
178781	1N4733A-VSHY	DO-41	5.1V @ 49mA	.13	.10	.08	.05
178802	1N4735A-VSHY	DO-41	6.2V @ 41mA	.13	.10	.08	.05
178811	1N4737A-VSHY	DO-41	7.5V @ 34mA	.13	.10	.08	.05
178829	1N4738A-VSHY	DO-41	8.2V @ 31mA	.13	.10	.08	.05
178837	1N4739A-VSHY	DO-41	9.1V @ 28mA	.13	.10	.08	.05
178845	1N4740A-VSHY	DO-41	10V @ 25mA	.13	.10	.08	.05
178853	1N4742A-VSHY	DO-41	12V @ 21mA	.13	.10	.08	.05
178861	1N4744A-VSHY	DO-41	15V @ 17mA	.13	.10	.08	.05
178870	1N4746A-VSHY	DO-41	18V @ 14mA	.13	.10	.08	.05
178896	1N4748A-VSHY	DO-41	22V @ 11.5mA	.13	.10	.08	.05

Zener Diodes

Part No.	Mfr. Cross Ref. No.	NTE/ECG	Case	Description	Pricing 1	100	500	1000
36290	1N751	5010A	DO-35	5.1V @ 20mA .5 W	$.12	$.09	$.07	$.04
36089	1N4732	5096	DO-41	4.7V @ 53mA 1 W	.12	.09	.07	.04
36097	1N4733	135A	DO-41	5.1V @ 49mA 1 W	.12	.09	.07	.04
36118	1N4734	136A	DO-41	5.6V @ 45mA 1 W	.25	.12	.09	.07
36126	1N4735	137A	DO-41	6.2V @ 41mA 1 W	.12	.09	.07	.04
36169	1N4742	142A	DO-41	12.0V @ 21mA 1 W	.12	.09	.07	.04
36185	1N4744	145A	DO-41	15.0V @ 17mA 1 W	.12	.09	.07	.04
183450	1N4750A	146A	DO-41	27.0V @ 9.5mA 1 W	.23	.12	.11	.10

Germanium Diode

Part No.	Prod. No.	NTE/ECG	Case	Description	1	10	100	1000
35941	1N270	109	DO-7	80 PRV @ 200mA	$.75	$.69	$.59	$.49

Switching Diodes

Part No.	Mfr. Cross Ref. No.	NTE/ECG	Case	Description	Pricing 1	10	100	1000
35967	1N3600	519	DO-35	50 PRV @ 100µa, 200mA	✳	$.12	$.10	$.08
36038	1N4148	519	DO-35	75 PRV @ 50µa, 10mA	✳	.04	.03	.025
151247	1N4148T	519	DO-35	75 PRV @ 50µa, 10mA	#	#	#	.02
36311	1N914	519	DO-35	75 PRV @ 5µa, 10mA	✳	.05	.04	.03

Taped-ammo style: please order in increments of 1000

Switching Diodes

Part No.	Product No.	Case	Description	1	10	100	1000
179207	1N914-VSHY	DO-35	100 PRV @ 25mA	✳	$.06	$.05	$.04
179215	1N4148-VSHY	DO-35	100 PRV @ 25mA	✳	.14	.13	.11

Surface Mount

Surface Mount Diode

Part No.	Mfr. Cross Ref. No.	NTE/ECG	Case	Description	Pricing 1	100	1000
94908	1N4148SM✦	—	DL-35	75 PRV @ 50µa, 10mA (1N914)	✳	$.04	$.035

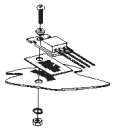
Heat Sink Mounting Kits

- TO-3 and TO-220 heat sink insulator assemblies
- 10 kits per pack

34139



34121

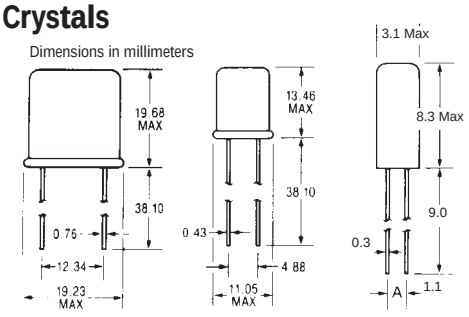


Part No.	Type	Description	1	10	100
34139	TO-3	12-piece kit	$4.95	$4.49	$3.95
34121	TO-220	5-piece kit	3.95	3.55	3.19

Part Number Color Code
New Sale Refurbished Closeout

Crystals

Dimensions in millimeters

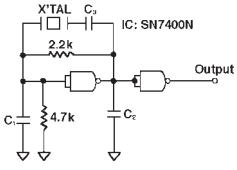


HC33/U Case HC49/U (HC18/U) Case TF Case

- Frequency calibration tolerance: ± 50ppm @ 25°C
- Operating temperature: -10°C to +60°C
- Drive level: 4.0 mW maximum
- Frequency stability tolerance: ±50 ppm from -10°C to +60°C
- Shunt capacitance: 7pF maximum

SALE

Application Reference (4~14MHz) (Parallel Resonance)



C1: 150-470 pF
C2: 220-820 pF
C3: Match crystal impedance

HC33/U Case

Part Number	Mfr. Cross Reference No.	Frequency (MHz)	Impedance	Microprocessor	Pricing 1	10	100	1000
14349	CY1	1.0	13pF	MC6800/6808/6809E/6500 series	$4.95	$4.49	$3.95	$3.49
14357	CY1.84	1.8432	Series	MC14411/CDP1802/CDP1804	.69	.62	.55	.50

HC49/U (HC18/U) Case

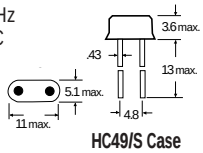
102613	CY1.843	1.8432	18pF	MC14411/MC6802	$.99	$.72	$.51	$.39
102621	CY2.0	2.0	Series	2650/F-8	1.49	1.25	.99	.75
101274	CY2.457	2.4576	32pF	CDP1702/1802C/1804/1804C	1.09	.98	.85	.75
14525	CY3.27	3.2768	18pF	IM6100C/CDP1802/CDP1804	.89	.79	.69	.59
14533	CY3.57	3.579545	18pF	MC6801,2,3/MM5369	.89	.79	.69	.59
14568	CY3.68	3.6864	18pF	8748/8035-8	.89	.79	.69	.59
14592	CY4	4.0	20pF	MCS-40/MC6802,8,9/CDP1802	.89	.79	.69	.59
14621	CY4.91	4.9152	Series	CDP1802C/1804/1804C	.89	.79	.69	.59
14681	CY6	6.0	18pF	MCS-48/IM8048	.79	.69	.55	.45
14699	CY6.14	6.144	30pF	MCS-85/8085	.79	.65	.49	.35
14710	CY7.37	7.3728	30pF	8051/8031	.89	.79	.69	.59
14728	CY8	8.0	Series	IM6100A/MC68B09	.89	.79	.69	.59
14381	CY10	10.0	Series	MCS-85/8085A-2	.79	.69	.59	.49
120061	CY11.05	11.0592	Series	General purpose	.89	.79	.69	.59
14402	CY12	12.0	Series	MCS-86/8086/8284/8202	.89	.72	.55	.39
14453	CY16	16.0	Series	8080/8224/general purpose	.99	.89	.79	.69
14517	CY20	20.0	Series	MCS-80/8080A/8224	.79	.69	.59	.39

TF Case

14584	CY32.76	32.768kHz	10.5pF	Tuning fork	$.89	$.79	$.69	$.59

Low Profile Crystals

- Frequency range: 3.5 to 70.0MHz
- Operating temp.: -10°C to +60°C
- Drive level: 0.5mW (fundamental frequency)
- Aging: ±5ppm/year maximum
- Frequency stability tolerance: ±50ppm

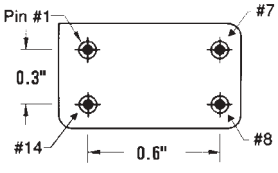


HC49/S Case

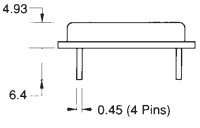
HC49/S Case (Low Profile)

Part Number	Mfr. Cross Reference No.	Frequency (MHz)	Imped.	Max. Resist.	Microprocessor	Pricing 1	10	100	1000
137816	CY3.57LP	3.579545	17pF	150Ω	MC6801, 2, 3/MM5369	$.95	$.81	$.65	$.59
137832	CY4LP	4.000	17pF	120Ω	MCS-40/MC6802, 8, 9/CDP1802	1.05	.85	.75	.65
137859	CY8LP	8.000	Series	60Ω	IM6100A/MC68B09	.75	.67	.59	.53
137875	CY11.05LP	11.0592	Series	50Ω	General purpose	1.05	.85	.75	.65
137891	CY16LP	16.000	Series	40Ω	8080/8224/general purpose	.69	.62	.56	.51

TTL Crystal Oscillators







Specifications:

- Input voltage: +5VDC ±0.5VDC
- OSC series oscillators fit into a 14-pin DIP socket PN 133006, below
- Frequency stability ±100ppm
- Operating temperature: 0°C to 70°C

Pin #	Function
1	N/C
7	GND
8	Output
14	+5VDC

Part Number	Mfr. Cross Reference No.	Frequency (MHz)	Input Current	Rise Fall Time	Max Input Current	Output Current	Pricing 1	10	100	1000
27861	OSC1	1.0	45mA	15ns	7mA	-1mA	$2.75	$2.45	$1.59	$1.39
27879	OSC184	1.8432	45mA	15ns	7mA	-1mA	2.39	1.99	1.79	1.39
27924	OSC2	2.0	30mA	15ns	7mA	-1mA	2.29	2.09	1.95	1.75
27967	OSC4	4.0	50mA	10ns	7mA	-1mA	1.99	1.79	1.59	1.39
27991	OSC8	8.0	30mA	15ns	15mA	-3mA	1.59	1.39	1.29	1.15
27887	OSC10	10.0	20mA	10ns	15mA	-3mA	1.59	1.39	1.29	1.15
144207	OSC11.05	11.059	30mA	10ns	50mA	-3mA	1.59	1.39	1.29	1.15
27895	OSC12	12.0	50mA	10ns	15mA	-3mA	1.59	1.39	1.29	1.15
108652	OSC14.31	14.31818	50mA	10ns	15mA	-3mA	1.59	1.39	1.29	1.15
27908	OSC16	16.0	50mA	10ns	15mA	-3mA	1.59	1.39	1.29	1.15
27932	OSC20	20.0	20mA	10ns	17mA	-3mA	1.59	1.39	1.29	1.15
27941	OSC32	32.0	15mA	7ns	18mA	-4mA	1.59	1.39	1.29	1.15
76822	OSC33	33.0	15mA	6ns	18mA	-4mA	1.99	1.79	1.60	1.45
153226	OSC40	40.0	15mA	6ns	18mA	-4mA	1.79	1.59	1.45	1.29
76831	OSC50	50.0	25mA	6ns	25mA	-4mA	1.99	1.59	1.49	1.35
77489	OSC80	80.0	80mA	3ns	25mA	-4mA	2.49	2.25	1.95	1.75
76857	OSC100	100.0	90mA	3ns	25mA	-4mA	2.49	2.25	1.95	1.75

14-Pin Crystal Oscillator Socket

- Can be PCB mounted without the modifications that would be needed with DIP-IC sockets
- Low profile solder tail; machine tooled on 4 pins
- Good for prototyping and PCB mounting



Part No.	Description	1	10	100	1000
133006	Oscillator socket	$.59	$.45	$.39	$.35

Phone 1-800-831-4242 Fax 1-800-237-6948

Order Anytime 24x7x365

Online www.Jameco.com



Photo Transistors *General Purpose (6-Pin DIP) Single & Dual Channel*

SALE

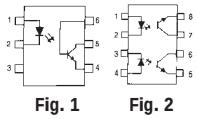



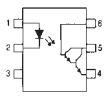
Fig. 1 Fig. 2

- Base lead connected • NPN output transistor
- ICEO (dark) Vce = 10V: 50nA max.
- Isolation test voltage: 7.5k V-P; 5.3k Vrms

* 2 independant isolators in one package, 8-pin DIP

Part Number	Mfr. Cross Ref. No.	Fig.	Curr. Transfer Ratio (Min%)	Cont. Fwd. Curr. Max. (mA)	Vce (Sat) Max. (V)	Pricing 1	10	100	500
40985	4N25	1	20	50	0.5	$.29	$.25	$.22	$.19
41005	4N26	1	20	50	(IF = 50mA)	.29	.25	.22	.19
144240	4N27	1	10	50	(Ic = 2mA)	.25	.19	.17	.15
41013	4N28	1	10	50		.27	.22	.16	.11
41056	4N35	1	100	50	0.3 (IF = 10mA) (Ic = 5.0mA)	.39	.35	.25	.16
24918*	MCT6	2	20	50	0.4 (IF = 16mA) (Ic = 0.2mA)	.59	.55	.49	.45

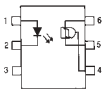
Photo Darlingtons *With Base Connection (6-Pin DIP)*

- Photo Darlington transistor detector base lead connected
- BVceo Ic =1mA: 30V min.
- Current transfer ratio IF=10mA VCE = 10V
- Isolation test voltage: 7.5k V-P; 5.3k Vrms

Part Number	Mfr. Cross Ref. No.	Curr. Transfer Ratio (Min%)	Cont. Fwd. Curr. Max. (mA)	Vce (Sat) Max. (V)	Pricing 1	10	100	500
41021	4N32	500	80	1.0 (IF = 8mA)	$.29	$.25	$.22	$.19
41030	4N33	500	80	(Ic = 2mA)	.29	.25	.22	.19

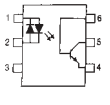
Schmitt Trigger *Single Channel (6-Pin DIP)*

- Microprocessor compatible
- Isolation test voltage: 7.5k V-P; 5.3k Vrms

Part Number	Mfr. Cross Ref. No.	Threshold Current RL = 270Ω Vcc = 5V Turn-On (max)	Turn-Off (min)	Output Volt (low) RL=270Ω Vcc=5V Max. (V)	Pricing 1	10	100	500
113988	H11L1	1.6mA	0.3mA	0.4	$.89	$.79	$.69	$.59

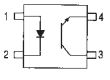
AC Input Isolator *Single Channel (6-Pin DIP)*

- Isolation test voltage: 7.5k V-P; 5.3k Vrms
- VF (LED) IF =10mA: 1.5V max.
- BVCEO Ic = 1mA: 30V min.

Part Number	Mfr. Cross Ref. No.	Curr. Transfer Ratio (Min%)	Cont.Fwd.Curr. Max. (mA)	Vce (Sat) IF=10mA Ic=0.5mA	Pricing 1	10	100	500
18825	H11AA1	20	100	0.4V (max)	$.52	$.41	$.38	$.34

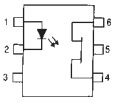
Transistor Slotted Interrupter *Single Channel (4-Pin DIP)*



- With mounting tabs
- VF = 1.7V max. @ 60mA

Part Number	Mfr. Cross Ref. No.	BVCEO Ic = 1mA	BVCEO IE = 100µA	ICEO (max) VCE = 25V Ih = 0	Pricing 1	10	100	500
114091	H21A1	30V min	6.0Vmin	100nA	$.83	$.75	$.62	$.56

FET Coupler *Single Channel (6-Pin DIP)*

- Optically coupled pair with symmetrical bilateral silicon detector
- On state resistance IF = 16mA; I46 = 100µA: 200Ω max.
- Isolation test voltage: 7.5k V-P; 5.3k Vrms

Part Number	Mfr. Cross Ref. No.	Output Brkdwn Volt. I46=10µA	Cont. Fwd. Curr. Max. (mA)	Off State Curr. I46 = 15V	Pricing 1	10	100	500
113996	H11F1	30V (min)	60	50nA (max)	$2.19	$1.75	$1.57	$1.41

30-Day Money-Back Guarantee

If you're not satisfied we'll take it back!

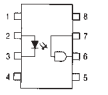
Details on page 181

Transistor Couplers *Single Channel (8-Pin DIP)*

SALE



42471 113929/42489

113911

- Isolation voltage: 2.5k Vrms min.

42471: High speed
- Propagation delay time tPHL: 0.8µs max.

113929: High speed, high gain
- Propagation delay time tPHL: 25µs max.

42489: High speed, high gain
- Propagation delay time tPHL: 10µs max.

113911: Very high speed logic
- Propagation delay time tPHL: 75ns max.
- LSTTL/TTL compatible

Part Number	Mfr. Cross Ref. No.	Curr. Transfer Ratio (Min%)	Specified Input Current (mA)	Typical Data Rate (NRZ)	Pricing 1	10	100	500
42471	6N136	19	16	1Mbits/s	$.79	$.69	$.55	$.39
113929	6N139	400	0.5	300kbits/s	.79	.69	.59	.43
42489	6N138	300	1.6	300kbits/s	.79	.69	.55	.39
113911	6N137	700	5	10Mbits/s	1.09	.98	.86	.57

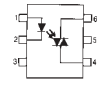
Zero Crossing Triac Couplers *Single Channel (6-Pin DIP)*



- Performs the function of a zero voltage crossing bilateral triac driver
- Isolation test voltage: 7.5k V-P; 5.3k Vrms

Part Number	Mfr. Cross Ref. No.	Input Trig. Curr. VTM=3V (Max)	Cont. Fwd. Curr. Max (mA)	Peak Block Volt. Min (V)	Pricing 1	10	100	500
26294	MOC3031	15mA	50	250	$1.19	$1.09	$.99	$.89
113953	MOC3032	10mA	50	250	.95	.84	.76	.68
113961	MOC3042	10mA	50	400	.89	.81	.72	.65
133874	MOC3063	5mA	50	600	1.25	1.12	.99	.71

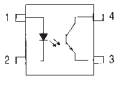
Triac Couplers *Single Channel (6-Pin DIP)*

- Infrared emitter and light activated silicon bilateral switch
- Isolation test voltage: 7.5k V-P; 5.3k Vrms

Part Number	Mfr. Cross Ref. No.	Input Trig. Curr. VD=3V (Max)	Cont. Fwd. Curr. Max (mA)	Peak Block Volt. Min (V)	Pricing 1	10	100	500
26278	MOC3010	15mA	60	250	$.49	$.45	$.39	$.35
95020	MOC3011	10mA	60	250	.55	.49	.45	.40
95038	MOC3021	15mA	60	400	.75	.69	.55	.45

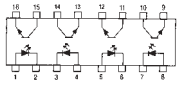
ISOCOM Photo Transistor *Low Input (4-Pin DIP)*

- Isolation test voltage: 7.5k V-P; 5.3k Vrms

Part Number	Product Number	BVceo Ic = 1mA	Curr. Trans.Ratio Min (%) Vce=0.4V IF=0.5/1mA	VBR IR = 10µA	Pricing 1	10	100	500
138069	ISP817-3	70V	70/100	10V	$.99	$.89	$.79	$.65

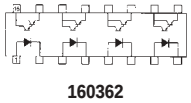
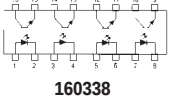
ISOCOM Transistor/Detector *Quad Channel (16-Pin DIP)*

- High Isolation voltage/CTR/sensitivity
- 4 independent isolators in one package
- Isolation test voltage: 7.5k V-P; 5.3k Vrms

Part Number	Product Number	Curr. Trans. Ratio (Min%) IF = 10mA VCE = 10V	Cont. Fwd. Curr. Max. (mA)	Pricing 1	10	100	500
114083	ISQ203	225-450	50	$2.95	$2.65	$2.39	$2.15

ISOCOM Photo Darlington & Transistor/Detector *(16-Pin DIP)*

160362 160338

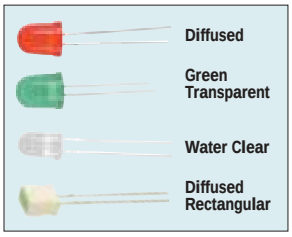
- Isolation test voltage: 7.5k V-P; 5.3k Vrms
- NPN transistor
- 1.17VF @ 10mA (typical)
- Continuous forward current (max.): 50mA

160362: Photo darlington

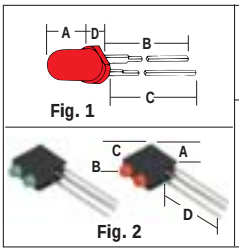
160338: Photo transistor/detector

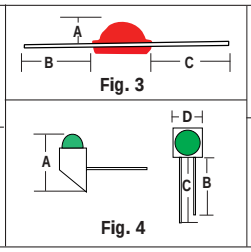
Part Number	Product Number	Curr. Transfer Ratio (Min%)	BVCEO (Ic = 1mA)	Vce (Sat) IF=10mA; Ic=2mA	Pricing 1	10	100	500
160362	PS2502-4	200	40V	1.0V max.	$2.49	$2.25	$1.95	$1.75
160338	PS2501-4	80-6000	80V	0.3V max.	1.55	1.39	1.25	1.15

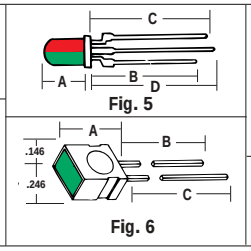
Call for OEM PRICING – we carry major manufacturers.

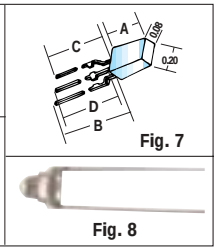












Standard-Output LEDs

✳ Prepackaged: order in increments of 10, 100 or 1000

Part Number	Mfr. Cross Ref. No.	Fig.	Emitting Color	Lens/Feature Description	LED Size	Diameter inch/mm	Dimensions (Inches) A	B	C	D	Lead Spacing	Typical Vf @ If (mA)	Typical mcd @ mA	Wavelength nm	Pricing 1	10	100	1000
176532	MV50G	8	Green	Water clear	T 3/4	.069/1.7	0.06	0.40	0.40	0.05	0.08	2.1 @ 20	300 @ 20	568	✳	$.10	$.08	$.06
134869	RRL5621	3	Orange Red	Red diffused (5V)†	T 3/4	.083/2.1	0.09	0.37	0.65	—	0.10	5.0 @ 8	1.2 @ 8	650	✳	.19	.15	.12
26745	MV50	3	Red	Water clear	T 3/4	.083/2.1	0.06	0.25	0.25	—	0.11	1.7 @ 20	1.4 @ 20	660	.39	.32	.25	.19
137411	LVB2040	1	Blue	Blue diffused	T1	.119/3	0.21	0.98	1.03	0.04	0.10	5.5 @ 20	7.0 @ 20	430	2.49	2.25	1.95	1.69
34606	LSG2040	1	Green	Green diffused (XC209G)	T1	.119/3	0.13	1.05	1.10	0.03	0.08	2.8 @ 20	15 @ 10	560	✳	.15	.13	.095
175679	LTL-232	1	Green	Green transparent	T1	.119/3	0.17	0.69	0.76	0.03	0.08	2.2 @ 20	170 @ 20	565	✳	.15	.12	.09
114681	LVG2043	1	Green	Water clear (BG209)	T1	.119/3	0.14	0.98	1.05	0.03	0.07	2.8 @ 20	22 @ 2	563	✳	.19	.15	.12
136274	LA44B/2G	2	Green	Green diffused (dual)	T1	.119/3	0.38	0.17	0.36	0.60	0.10	2.3 @ 20	20 @ 10	565	.35	.29	.25	.19
34657	LY2040	1	Yellow	Yellow diffused (XC209Y)	T1	.119/3	0.16	0.68	0.76	0.04	0.08	2.8 @ 20	6.5 @ 10	585	✳	.17	.13	.10
202489	MVL-301Y	1	Yellow	Yellow diffused	T1	.119/3	0.14	1.12	1.17	0.04	0.10	2.1 @ 20	9.0 @ 10	585	✳	.19	.15	.12
136493	LT0333-41	1	Yellow	Water clear (BY209)	T1	.119/3	0.20	0.95	1.00	0.04	0.10	2.1 @ 20	19 @ 20	585	✳	.19	.11	.09
206480	LVY2041	1	Yellow	Yellow transparent	T1	.119/3	0.17	0.69	0.76	0.03	0.08	2.3 @ 20	375 @ 20	595	✳	.15	.12	.09
202471	MVL-301HR	1	Orange-Red	Red diffused	T1	.119/3	0.14	1.12	1.17	0.04	0.10	2.0 @ 20	9.0 @ 10	640	✳	.19	.15	.12
34622	LR2040	1	Orange Red	Red diffused (XC209R)	T1	.119/3	0.14	1.09	1.14	0.04	0.09	2.0 @ 20	1.5 @ 10	655	✳	.15	.13	.095
94529	LH2040	1	Red	Red diffused (XC209RB)	T1	.119/3	0.18	1.04	1.13	0.03	0.07	2.0 @ 20	2.7 @ 20	700	✳	.19	.15	.12
206498	LRY2041	1	Red	Red transparent	T1	.119/3	0.17	0.69	0.76	0.03	0.08	2.1 @ 20	280 @ 20	660	✳	.15	.12	.09
114673	LH2043	1	Red	Water clear (BR209)	T1	.119/3	0.14	0.98	1.05	0.03	0.07	2.8 @ 20	15 @ 15	697	✳	.19	.15	.12
136282	LA44B/2I	2	Red	Red diffused (dual)	T1	.119/3	0.38	0.17	0.36	0.60	0.10	2.3 @ 20	6.2 @ 10	630	.35	.29	.25	.19
123941	521-9478	1	Green/Yellow	White diff. bi-color/bi-state[1]	T1	.119/3	0.18	0.86	0.93	0.03	0.08	2.6 @ 10	5.0 @ 10	565/585	✳	.29	.19	.15
94553	LHG2062	1	Red/Green	White diff. bi-color/bi-state[1]	T1	.119/3	0.18	1.06	1.12	0.03	0.08	2.8 @ 20	3 & 15 @ 10	697/565	✳	.22	.19	.15
138691	LVB3330	1	Blue	Blue diffused	T1 3/4	.197/5	0.34	0.98	1.03	0.06	0.08	5.5 @ 20	10 @ 20	430	2.49	2.25	1.95	1.75
134332	LT18B3-81UR	1	Blue	Water clear	T1 3/4	.197/5	0.30	0.93	1.00	0.04	0.10	5.0 @ 20	630 @ 20	428	2.65	2.45	2.25	1.95
137613	LSB3333	1	Blue	Water clear	T1 3/4	.197/5	0.34	0.98	1.03	0.04	0.08	5.5 @ 20	190 @ 20	430	2.49	2.25	1.95	1.75
34761	LG3330	1	Green	Green diffused (XC556G)	T1 3/4	.197/5	0.31	0.79	0.88	0.04	0.09	2.8 @ 20	12 @ 10	565	✳	.15	.14	.10
175687	LT0524-81	1	Green	Green transparent	T1 3/4	.197/5	0.24	1.07	1.14	0.05	0.07	2.0 @ 20	40 @ 20	555	✳	.18	.15	.09
11359	LG3333	1	Green	Water clear (BG5704)	T1 3/4	.197/5	0.30	1.04	1.12	0.04	0.07	2.1 @ 20	40 @ 20	555	✳	.19	.17	.14
153154	LVG3333	1	Green	Water clear	T1 3/4	.197/5	0.36	0.90	0.95	—	0.10	2.2 @ 20	300 @ 20	568	✳	.19	.15	.12
94561	LFG3360	1	Green	Green diff./flashing (XC5408)	T1 3/4	.197/5	0.30	1.05	1.11	0.04	0.08	1.2 @ 20	17 @ 20	565	.59	.53	.48	.43
206375	LA129B/2LG	2	Green	Green diffused (dual)	T1 3/4	.197/5	0.39	0.18	0.39	0.10	0.10	2.3 @ 20	12 @ 10	565	.49	.45	.39	.29
104256	LA93B/G-1	4	Green	Green diffused (XC410G)	T1 3/4	.197/5	0.35	0.89	0.95	0.23	0.08	2.2 @ 20	6.0 @ 10	570	✳	.23	.19	.17
34825	LY3330	1	Yellow	Yellow diffused (XC556Y)	T1 3/4	.197/5	0.30	0.82	0.84	0.03	0.07	2.8 @ 20	15 @ 10	585	✳	.19	.15	.12
206501	LVY3331	1	Yellow	Yellow transparent	T1 3/4	.197/5	0.24	1.07	1.14	0.05	0.07	2.3 @ 20	725 @ 20	595	✳	.19	.15	.12
175695	LTL-425B	1	Yellow	Water clear	T1 3/4	.197/5	0.30	1.07	1.15	0.03	0.08	2.2 @ 20	550 @ 20	595	✳	.19	.15	.12
104264	LA93B/Y-1	4	Yellow	Yellow diffused (XC410Y)	T1 3/4	.197/5	0.35	0.89	0.95	0.23	0.08	2.8 @ 20	2.5 @ 10	585	.35	.29	.25	.19
107393	LE3330	1	Orange Red	Orange diffused (XC556A)	T1 3/4	.197/5	0.30	1.02	1.08	0.04	0.08	2.8 @ 20	12 @ 20	635	✳	.17	.13	.10
135597	LTL307E	1	Orange Red	Red diffused	T1 3/4	.197/5	0.34	1.00	1.05	0.03	0.07	2.8 @ 20	19 @ 10	635	✳	.19	.15	.12
203553	HLMP-4100	1	Orange Red	Water clear	T1 3/4	.197/5	0.33	1.07	1.13	0.03	0.08	1.8 @ 20	750 @ 20	637	.29	.25	.19	.15
34796	LR3330	1	Orange Red	Red diffused (XC556R)	T1 3/4	.197/5	0.30	0.62	0.68	0.04	0.08	2.0 @ 20	1.5 @ 10	655	✳	.15	.12	.08
34690	LFH3360	1	Red	Red diff./flashing (XC5410)	T1 3/4	.197/5	0.30	0.94	0.98	0.04	0.07	1.2 @ 20	2.8 @ 20	697	.49	.45	.39	.35
94511	LH3330	1	Red	Red diffused (XC556RB)	T1 3/4	.197/5	0.31	0.81	0.86	0.04	0.08	2.8 @ 10	4.0 @ 10	697	✳	.17	.13	.10
206519	LHR3331	1	Red	Red transparent	T1 3/4	.197/5	0.24	1.07	1.14	0.05	0.07	2.0 @ 20	725 @ 20	660	✳	.19	.15	.12
34745	LH3333	1	Red	Water clear (XC554R)	T1 3/4	.197/5	0.30	1.00	1.12	0.04	0.08	2.8 @ 20	7.5 @ 10	697	✳	.15	.11	.065
104248	LA93B/H-1	4	Red	Red diffused (XC410R)	T1 3/4	.197/5	0.35	0.89	0.95	0.23	0.08	2.8 @ 20	6.5 @ 10	697	✳	.23	.19	.17
11797	HPQLMPD141	1	Red	Water clear (BR5704)	T1 3/4	.197/5	0.29	1.05	1.11	0.03	0.07	2.0 @ 20	350 @ 20	660	✳	.19	.15	.12
138860	LFH3363	1	Red	Water clear/flashing†	T1 3/4	.197/5	0.35	1.06	1.15	0.04	0.10	3-15 @ 20	7.5 @ 20	697	.49	.45	.39	.29
206383	LA129B/2LR	2	Red	Red diffused (dual)	T1 3/4	.197/5	0.39	0.18	0.39	0.60	0.10	2.3 @ 20	3.5 @ 10	697	.49	.45	.39	.29
34711	LEG3362	1	Red/Green	White diff. bi-color/bi-state[1]	T1 3/4	.197/5	0.30	1.01	1.06	0.04	0.09	2.8 @ 20	7.5 & 8 @ 20	635/565	.35	.29	.25	.19
34673	LHG3392	5	Red/Green	White diff. bi-color/tri-state[1]	T1 3/4	.197/5	0.30	1.02	1.05	1.12	0.03	2.8 @ 20	3 & 12 @ 10	697/565	.29	.25	.19	.15
137621	LVG3930	1	Green	Green diffused Jumbo	T2 1/2	.315/8	0.43	1.04	1.09	0.07	0.07	1.7 @ 20	40 @ 20	565	.29	.25	.19	.15
119634	LHR3930	1	Red	Red diffused Jumbo	T2 1/2	.315/8	0.44	0.84	1.00	—	0.07	2.4 @ 20	100 @ 20	660	.29	.25	.18	.14
98984	LVG3630	1	Green	Green diff. XJumbo (XC10G)	T3 1/4	.394/10	0.40	1.07	1.17	0.12	0.08	2.8 @ 20	40 @ 20	565	.28	.25	.22	.14
98992	LY3630	1	Yellow	Yellow diff. XJumbo (XC10Y)	T3 1/4	.394/10	0.54	1.04	1.11	0.08	0.08	2.1 @ 20	8.0 @ 20	585	.29	.25	.19	.15
138683	LHR3630	1	Red	Red diff. XJumbo (XC10R)	T3 1/4	.394/10	0.40	1.04	1.08	0.07	0.10	1.5 @ 20	200 @ 20	660	.29	.26	.22	.18
104889	LEG5292*	7	Red/Green	White diff. bi-color rect.	2 x 5	—	0.27	1.02	1.05	1.13	0.08	2.2 @ 20	3.5/6 @ 10	695/570	✳	.17	.13	.10
94545	LG25030*	6	Green	Green diff. rect. (XC57124G)	3.5 x 6	—	0.26	1.06	1.11	—	0.08	2.2 @ 20	5.0 @ 20	565	.39	.35	.25	.19
34850	LT7341R-81*	6	Orange Red	Red diffused rectangular	3.5 x 6	—	0.27	0.85	0.93	—	0.07	2.0 @ 20	10.1 @ 20	635	.39	.35	.31	.24

1 Reverse polarity to change color † Has internal current limiting resistor * For Mounting Hardware see page 31

• Typical DC forward current 20mA

✳**Prepackaged: please order in increments of 10, 100 or 1000**

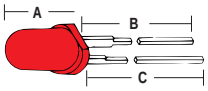


Fig. 1

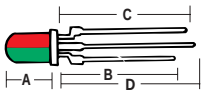
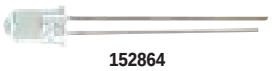


Fig. 2


152864

151415



Ledtech is a QS9000 and ISO-9000 Certified Company

Part Number	Product Number	Fig.	Emitting Color	Lens/Feature Description	LED Size	Dia. (inch/mm)	Dimensions (Inches) A	B	C	D	Lead Spacing	Typical Vf @ If (mA)	Typical mcd @ mA	Wavelength nm	Pricing 1	10	100	1000
152768	LT0324-41	1	Green	Green clear	T1	.119/3	0.20	0.89	0.95	—	0.10	2.1 @ 20	20 @ 20	567	**$.17**	**$.14**	**$.11**	**$.11**
156929	LT0321-41-HE	1	Green	Green diffused	T1	.118/3	0.16	0.88	0.94	—	0.10	2.1 @ 20	13.3 @ 20	567	✳	**.18**	**.11**	**.10**
156937	LT0331-41	1	Yellow	Yellow diffused	T1	.118/3	0.16	0.88	0.94	—	0.10	2.1 @ 20	11 @ 20	585	✳	**.17**	**.14**	**.11**
152750	LT0344R-41	1	Orange Red	Red clear	T1	.119/3	0.20	0.89	0.95	—	0.10	2.1 @ 20	23.5 @ 10	635	✳	**.19**	**.16**	**.12**
152784	LT0341R-41	1	Orange Red	Red diffused	T1	.119/3	0.20	0.89	0.95	—	0.10	2.1 @ 20	6.9 @ 10	635	✳	**.17**	**.15**	**.12**
156953	LT0373-41	1	Red Super Brt.	Water clear	T1	.119/3	0.21	1.07	1.14	—	0.08	1.7 @ 20	600 @ 20	660	**.25**	**.19**	**.15**	**.12**
156945	LT0362-25-D61	2	Red/Green	White diff. bi-color tri-state	T1	.119/3	0.16	0.87	0.94	1.0	0.08	2.1 @ 20	14/3 @ 20	700/567	**.29**	**.25**	**.19**	**.15**
152821	LT1821-81-HE	1	Green	Green diffused	T1 ¾	.197/5	0.34	0.89	0.95	—	0.10	2.2 @ 20	100 @ 20	567	✳	**.17**	**.11**	**.09**
156961	LT1823-81-HE	1	Green	Water clear	T1 ¾	.197/5	0.34	0.87	0.97	—	0.10	2.2 @ 20	500 @ 20	567	✳	**.19**	**.17**	**.14**
152830	LT1831-81UR	1	Yellow Ultra Brt.	Yellow diffused	T1 ¾	.197/5	0.34	0.89	0.95	—	0.10	2.1 @ 20	400 @ 20	595	**.39**	**.35**	**.29**	**.25**
152792	LT1833-81M1	1	Yellow Super Brt.	Water clear	T1 ¾	.197/5	0.34	0.89	0.95	—	0.10	2.1 @ 20	420 @ 20	595	**.29**	**.25**	**.19**	**.15**
152856	LT1841R-81	1	Orange Red	Red diffused	T1 ¾	.197/5	0.34	0.89	0.95	—	0.10	2.1 @ 20	10.3 @ 10	635	✳	**.17**	**.15**	**.13**
152864	LT1873-81	1	Red Super Brt.	Water clear	T1 ¾	.197/5	0.34	0.89	0.95	—	0.10	1.7 @ 20	1000 @ 20	660	**.25**	**.19**	**.15**	**.12**
152805	LT1873-81-UR	1	Red Ultra Brt.	Water clear	T1 ¾	.197/5	0.34	0.89	0.95	—	0.10	1.9 @ 20	2000 @ 20	660	**.29**	**.25**	**.19**	**.15**
156970	LT1873-UR-C07	1	Red Ultra Brt.	Water clear (wide angle)	T1 ¾	.197/5	0.34	0.89	0.95	—	0.10	1.9 @ 20	2112 @ 20	660	**.35**	**.31**	**.25**	**.19**
White Diffused Backlight																		
151415	LTIF24-A2-S1	–	Green	Backlight, white diffused	2.05"L x 0.78"H x 0.09"T						8-pin	6.0 @ 20	6.0 @ 20	567	**$2.95**	**$2.65**	**$2.39**	**$1.95**

Cluster Lamps & LED Accessories

LED Mounting Hardware

† **95521:** for use with P/N 104889, 94545 and 34850, pg 30

✳ **Prepackaged: please order in increments of 10, 100 or 1000**


95513


23077

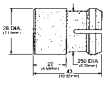

95521

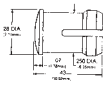
Part No.	Mfr. Cross Ref. No.	Description	Color	Mounting Hole Dia.	Panel Thickness	Pricing 1	10	100	1000
95513	LMH100	T1 snap-in	Black	.185"	up to .070"	✳	**$.12**	**$.11**	**$.09**
23077	LMH200	T1¾ ring & clip	Black	.257"	up to .125"	✳	**.15**	**.135**	**.12**
95521	LMH250†	Rect. snap-in	Black	.306" x .202"	up to .092"	✳	**.20**	**.18**	**.16**

T1 & T1 3/4 Cliplite® LED Lens Mount

- Requires no assembly tools, just snap in
- Material: lens – polycarbonate; spacer – nylon
- Increases viewing angle to 180˚
- Devices mount on .375" centers
- Helps guard against electrostatic discharge up to 16kV while affording the LED physical protection


29612


Figure 1 (5mm)


Figure 2 (5mm)

✳ **Prepackaged: please order in increments of 10, 100 or 1000**

Part No.	Product No.	Description	Color	Fig.	Mounting Hole Dia.	Panel Thickness	Pricing 1	10	100	1000
124919	SML190RTP	T1	Red	1	.25"	.063" –.125"	✳	**$.04**	**$.03**	**$.02**
14277	CLF280CTP	T1¾	Clear	1	.25"	.063" –.125"	**.24**	**.21**	**.18**	**.15**
29612	CLF280RTP	T1¾	Red	1	.25"	.063" –.125"	**.25**	**.22**	**.19**	**.17**
124927	CLB300CTP	T1¾	Clear	2	.25"	.031" – .25"	**.24**	**.21**	**.18**	**.15**

Design Engineer's 139 Piece LED Hardware Assortment Kit

Allows you to mount LEDs for different applications and designs. Eliminates soldering, shrink tubing and terminal crimping.



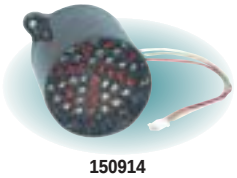
- 139 piece hardware kit for T1 and T1¾ LEDs
- Clear plastic case with dividers
- Size: 8.5"L x 4.5"W x 1.5"H

Includes: clear, red, yellow, green, and blue (round and square) LED panel lenses and mounts; standard header pin and crimp-type removable prewired solderless LED interconnection; vertical/horizontal, SMT-type/through-hole/ resistor-type LED PCB mounts/sockets and standoffs

Part No.	Description	1	10
140759	LED hardware kit	**$22.95**	**$20.49**

Cluster-Type T1 3/4 LED Lamps

- Cluster-type red/green T1¾ LEDs
- Lens: water clear
- 660nm for red/570nm for green
- Common anode
- 3 lead wires


150914

150922: 14 Cluster
- 8 green/6 red
- 1950 mcd @ 20mA
- 7" lead wire
- Vf @ If: 10V @ 20mA
- Size: 1.02"Dia. x 1.51"L

150914: 50 Cluster
- 30 green/20 red
- 16" lead wire
- Vf @ If: 20.5V @ 40mA
- 12,000 mcd @ 40mA
- Size: 2.07"Dia. x 1.98"L

Part No.	Product No.	Mounting Hole Dia.	1	10	100
150922	LCR2614B-79	M3	**$4.95**	**$3.75**	**$2.65**
150914	LCR5250A-79	M4	**21.95**	**19.95**	**17.95**

T1 & T1 3/4 Cliplite® Lens & Conxrite® Cable Assembly

Cliplite® Lens:
- Material: (lens) polycarbonate: (ring) polyproplyene (UL Listed)
- Mounts through front panel in O.171" hole diameter, panel thickness from 1/32" to 3/32"

SALE



Conxrite® Cable Assembly:
- Connector socket and ring/header connector: thermoplastic (UL Listed)
- Terminals: phosphor bronze, tin-plated • Wire: 22AWG, 7 strand copper, insulated

T1 Size

Part No.	Product No.	Description	1	10	100	1000
143183	SMC170CTP	Clear Cliplite® lens	**$.25**	**$.22**	**$.17**	**$.14**
143087	BE2108	8.5" cable assembly	**1.49**	**1.35**	**1.19**	**1.09**

T1¾ Size

Part No.	Product No.	Description	1	10	100	1000
143132	CMC321CTP	Clear Cliplite® lens	**$.25**	**$.22**	**$.19**	**$.16**
143036	CE2108	8.5" cable assembly	**1.49**	**1.35**	**1.19**	**1.09**
143052	CE2118	18" cable assembly	**1.75**	**1.59**	**1.39**	**1.25**

- Use for remote control and/or for fiber optics
- **P/N 133946:**
  Can be used with cameras,
  see pgs 162-164 (peak emission
  wavelength: 940nm @ If 20mA)

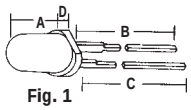


Fig. 1

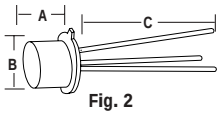


Fig. 2

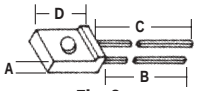


Fig. 3

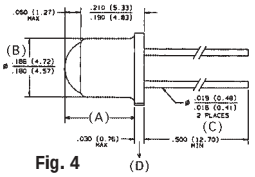


Fig. 4

SALE

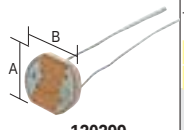

106526


172321

Part No.	Mfr. Cross Ref. No.	Fig.	Description	Size	Diameter inch/mm	Dimensions (inches) A	B	C	D	Vf @ If	nm	mWatts	Pricing 1	10	100	1000
112150	TLN100	1	Infrared emitter diode (GaAs)	T1	0.125/3	0.18	0.95	0.98	0.03	1.2V @ 20mA	940	1.2	**$.39**	**$.29**	**$.19**	**$.15**
106526	TLN110	1	Infrared emitter diode (GaAs)	T1¾	0.200/5	0.34	0.78	0.84	0.04	1.2V @ 20mA	940	9	**.39**	**.29**	**.19**	**.15**
172321	OP133	4	Infrared emitter diode (GaAs)	TO-46	—	0.22	0.18	1.05	0.2	1.8V @ 100mA	935	5	**2.25**	**1.95**	**1.75**	**1.49**
133946	SLI-0308CP	1	Infrared emitter diode (GaAs)	T1	0.12/3	0.22	0.98	1.00	0.03	1.7V @ 50mA	940	200	**.83**	**.75**	**.61**	**.47**
112176	IRD300	1	Infrared detector	T1	0.12/3	0.18	0.95	0.98	0.03	—	940	—	**.39**	**.29**	**.19**	**.15**
112168	IRD500	1	Infrared detector	T1¾	0.200/5	0.31	1.05	1.10	0.04	—	940	—	**.39**	**.36**	**.28**	**.23**
120221	BPW77	2	Visible light detector	TO-18	—	0.24	0.19	0.52	—	—	800	—	**1.95**	**1.75**	**1.49**	**1.25**
124020	TP104	3	Photo transistor detector	Rectangle	0.16/4	0.09	0.45	0.45	0.16	—	850	—	**.39**	**.35**	**.29**	**.25**

CDS Photocells

- Applications include: auto-focus lenses, exposure meters, contrast controls for TVs, dimmer or light switches, flame detectors, electronic toys, street lamp switches, optocouplers
- Generate variable signal based on detection of light levels
- Operating temperature: -30°C to +70°C
- Cadmium Sulfide (CDS)
- Soldering: 230°C for 3 seconds



120299


202438

SALE

Part No.	Mfr. Cross Ref. No.	Rating Vp	mW	Resistance (Ω) Dark	Light	Size (inches) A	B	Lead Spacing (inches)	Lead Length (inches)	Pricing 1	10	100	1000
136063	CDST18	20	40	100k	10k	0.14	0.17	0.10	1.50	**$.69**	**$.62**	**$.55**	**$.49**
136047	CDST05	50	250	100k	10k	0.25	0.29	0.18	1.50	**.89**	**.75**	**.65**	**.49**
136055	CDST08	50	200	100k	10k	0.40	0.44	0.30	1.50	**.89**	**.71**	**.54**	**.39**
202366	CDS0029001	150	90	300k	27k	0.14	0.17	0.10	1.02	**1.49**	**1.35**	**1.19**	**1.09**
202374	CDS0029006	150	90	5M	80k	0.14	0.17	0.10	1.02	**1.49**	**1.35**	**1.19**	**1.09**
202391	CDS0029203	150	90	20M	5k	0.14	0.17	0.10	1.02	**1.49**	**1.35**	**1.19**	**1.09**
202382	CDS0029008	150	90	20M	10k	0.14	0.17	0.10	1.02	**1.49**	**1.35**	**1.19**	**1.09**
202420	CDS0018003	150	100	500k	16k	0.17	0.2	0.13	1.02	**1.49**	**1.35**	**1.19**	**1.09**
202403	CDS0018001	150	100	200k	3k	0.17	0.2	0.13	1.02	**1.49**	**1.35**	**1.19**	**1.09**
202411	CDS0018006	150	100	5M	80k	0.17	0.2	0.13	1.02	**1.49**	**1.35**	**1.19**	**1.09**
120310	CDS002	150	90	2M	27k	0.14	0.17	0.10	1.44	**1.49**	**1.35**	**1.19**	**1.09**
202438	CDS0037004	200	150	500k	15k	0.25	0.29	0.20	1.44	**1.79**	**1.59**	**1.45**	**1.29**
120301	CDS0037001	200	150	300k	3.6k	0.25	0.29	0.20	1.44	**1.79**	**1.59**	**1.45**	**1.29**
202446	CDS0037005	200	150	20M	50k	0.25	0.29	0.20	1.44	**1.79**	**1.59**	**1.45**	**1.29**
120299	CDS0045001	350	400	300k	8k	0.38	0.43	0.30	1.44	**1.95**	**1.75**	**1.59**	**1.39**
202454	CDS0045003	350	400	1M	12k	0.37	0.43	0.30	1.44	**1.85**	**1.65**	**1.49**	**1.35**

High-Output LEDs

High-Output LEDs

SALE

- Typical DC forward current 20mA

See page 31 for LED Mounting Hardware

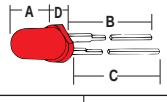
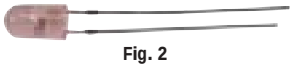


Fig. 1


Fig. 2

Part No.	Mfr. Cross Reference No.	Fig.	Emitting Color	Lens/Feature Description	LED Size	Diameter inch/mm	Dimensions (Inches) A	B	C	D	Lead Spacing	Typical Vf @ If (mA)	Typical mcd @ mA	Wavelength nm	Pricing 1	10	100	1000
142885	CLP1309-U	1	White	Water clear	T1	.119/3	0.22	0.84	0.90	0.04	0.08	3.6 @ 20	2300 @ 20	—	**$4.49**	**$3.95**	**$3.49**	**$2.95**
197616	BVU5E1QH4E	1	Red	Water clear	T1 3/4	.197/5	0.30	1.05	1.10	0.07	0.08	1.8 @ 20	2180 @ 20	630	**.39**	**.35**	**.29**	**.25**
153138	LT2KJ3-UR-S14	1	Orange	Water clear	T1 3/4	.197/5	0.36	0.90	0.95	—	0.10	2.4 @ 20	2500 @ 20	621	**.39**	**.35**	**.29**	**.25**
197683	BVT5E1QT4ER	1	Orange-Red	Water clear	T1 3/4	.197/5	0.29	1.08	1.11	0.04	0.08	2.3 @ 20	4650 @ 20	634	**.69**	**.59**	**.49**	**.39**
131895	TLSH180P	1	Orange	Water clear	T1 3/4	.197/5	0.39	0.80	0.86	0.06	0.10	2.1 @ 20	7000 @ 20	623	**2.49**	**2.19**	**1.95**	**1.79**
153146	LT2K33-URP-8	1	Yellow	Water clear	T1 3/4	.197/5	0.36	0.90	0.95	—	0.10	2.4 @ 20	9300 @ 20	595	**.59**	**.55**	**.49**	**.45**
197675	BVT5E1TT4E	1	Yellow	Water clear	T1 3/4	.197/5	0.30	1.08	1.13	0.04	0.08	2.3 @ 20	2800 @ 20	592	**.69**	**.62**	**.55**	**.49**
183214	MCDPG503PCI	1	Green	Water clear	T1 3/4	.197/5	0.30	1.04	1.09	0.04	0.08	3.5 @ 20	2200 @ 20	515	**2.95**	**2.65**	**2.39**	**2.15**
197624	BVU5E1BA4	1	Blue	Water clear	T1 3/4	.197/5	0.29	1.06	1.12	0.04	0.08	3.5 @ 20	10000 @ 20	470	**3.19**	**2.89**	**2.59**	**2.29**
183222	MCDL513SBC4	1	Blue	Water clear	T1 3/4	.197/5	0.29	1.02	1.13	0.04	0.08	5.0 @ 20	3000 @ 20	470	**3.25**	**2.95**	**2.65**	**2.39**
183231	T18W133196	1	White	Water clear	T1 3/4	.197/5	0.30	1.06	1.12	0.04	0.08	3.6 @ 20	3000 @ 20	—	**2.95**	**2.65**	**2.39**	**2.15**
142893	CLP1509	1	White	Water clear	T1 3/4	.197/5	0.34	0.79	0.88	0.04	0.08	3.6 @ 20	3700 @ 20	—	**4.49**	**3.95**	**3.49**	**2.95**
197641	BVT529T13E	2	Yellow	Yellow transparent (oval)	Oval	.170/.220	0.29	1.04	1.09	—	0.08	2.3 @ 20	7800 @ 20	590	**.69**	**.62**	**.55**	**.49**
197659	BVT529QT3F	2	Orange-Red	Red transparent (oval)	Oval	.170/.220	0.30	1.05	1.11	—	0.08	2.3 @ 20	3600 @ 20	629	**.69**	**.62**	**.55**	**.49**

LED Displays

The general advantages of LED displays compared to incandescent types include:

- Lower power consumption
- Longer lifetime (averaged more than 300,000 hours)
- Compact size suitable for instrumentation and graphic representations

Soldering: • Soldering bath: not more than 5 seconds @ 260°C
• Soldering iron: not more than 3 seconds @ 300°C under 30W



24740 & 24782 | 17187 | 24723 | 200635 | 18737 | 18753 | 206017 | 32951 | 118906 | 202526

7-Segment Displays

Part No.	Mfr. Cross Reference No.	Character Height	Illuminated Color	Buss Polarity*	Pins/ Leads	Typical Vf @ If (mA)	Typical mcd @ mA	Wavelength nm	Decimal Point #	Pricing 1	10	100	1000
24731	LSD3021-11	.300"	Red	CA	11	1.9 @ 20	0.3 @ 20	697	RHDP	$.95	$.76	$.68	$.61
24740	LSD3221-11	.300"	Red	CA	11	2.1 @ 20	2.5 @ 20	697	LHDP	.89	.79	.72	.64
151976	LTS312AY	.300"	Yellow	CA	11	2.8 @ 20	2.0 @ 10	585	LHDP	.89	.75	.65	.49
24782	LSD3211-11	.300"	Red	CC	10	2.1 @ 20	2.5 @ 20	697	RHDP	.89	.75	.65	.49
17187	LSD5051-11	.500"	Red	CC	10	2.1 @ 20	0.9 @ 20	697	RHDP	.89	.80	.72	.60
17208	LSD5061-11	.500"	Red	CA	10	2.1 @ 20	0.9 @ 20	697	RHDP	.89	.75	.65	.49
104213	LSD5124-10	.560"	Orange Red	CA	10	2.0 @ 20	2.4 @ 20	635	RHDP	.89	.80	.71	.55
199531	LSD5111-11	.560"	Red	CC	10	2.1 @ 20	0.8 @ 20	697	RHDP	.99	.89	.79	.72
24715	LDD5121-20	.560"	Red	2-digit CA	18	2.1 @ 20	0.8 @ 20	697	RHDP	1.25	1.05	.89	.75
24723	LDD5111-11	.560"	Red	2-digit CC	18	2.1 @ 20	0.8 @ 20	697	RHDP	1.25	1.05	.89	.75
200379	LB602VAGI	.560"	Red	2-digit CA	18	2.0 @ 10	16 @ 10	650	RHDP	1.39	1.12	.85	.60
24694	LDD5124	.560"	Orange Red	2-digit CA	18	2.0 @ 20	2.4 @ 20	635	RHDP	1.55	1.25	1.15	1.19
24707	LDD5114-20	.560"	Orange Red	2-digit CC	18	2.0 @ 20	2.4 @ 20	635	RHDP	1.35	1.15	.99	.89
200539	ELD556YWA	.560"	Yellow	2-digit CA	18	2.0 @ 20	1.9 @ 10	590	RHDP	1.25	.99	.75	.53
200635	LB603MF	.560"	Green	3-digit CA	28	2.1 @ 10	25 @ 10	563	RHDP	2.39	2.15	1.95	1.75
199582	LC56311	.560"	Yellow	CC	8	2.1 @ 20	5.2 @ 20	589	RHDP	1.49	1.34	1.19	.99
196787	LB602VA	.560"	Orange Red	2-digit CA	18	2.0 @ 20	16.0 @ 20	650	RHDP	1.59	1.29	.99	.79
18737	LSD816-11	.800"	Orange Red	CA	13	1.6 @ 20	0.9 @ 20	655	RHDP	1.45	1.20	.99	.74
18753	LSD8151-10	.800"	Red	CC	13	2.1 @ 20	1.0 @ 20	697	RHDP	1.49	1.35	1.19	.99
206017	SC08-11HWA	.800"	Red	CC	13	2.0 @ 20	.36 @ 10	700	RHDP	1.49	1.35	1.19	.94
176559	C8021-1	.800"	Green	CC	13	2.0 @ 20	0.9 @ 20	568	RHDP	.49	.42	.37	.33
97172	LSD10061-10	1.0"	Red	CA	10	2.1 @ 20	2.0 @ 20	697	RHDP	1.39	1.25	1.12	.99
97199	LSD23265-10	2.24"	Red	CA	10	1.7 @ 20	21 @ 20	660	RHDP	4.75	4.29	3.85	3.45
97201	LSD23255-10	2.24"	Red	CC	10	1.7 @ 20	21 @ 20	660	RHDP	4.49	3.95	3.25	2.95
202518	LSD30165-20	3.0"	Orange Red	CA	10	8 @ 20	4.5 @ 10	635	RHDP	7.39	6.99	6.65	6.29
202542	LSD30155-20	3.0"	Orange Red	CC	10	8 @ 20	4.5 @ 10	635	RHDP	5.95	5.35	4.82	4.34
105591 †	LSD40054-20	4.0"	Orange Red	CA	10	2.0 @ 20	18 @ 20	635	RHDP	9.49	8.29	7.49	6.49
202500	LSD40064-20	4.0"	Orange Red	CC	10	2.0 @ 20	18 @ 10	635	RHDP	10.49	9.49	8.59	7.79
202526	LSD50065-20	5.0"	Red	CA	10	17 @ 20	45 @ 10	660	RHDP	29.95	26.95	24.25	21.85
202534	LSD50055-20	5.0"	Red	CC	10	17 @ 20	45 @ 10	660	RHDP	17.95	14.35	12.95	11.65

† P/N 105591: 5 diodes per segment

Dot Matrix Displays

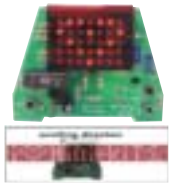
Part No.	Mfr. Cross Reference No.	Jameco Socket Number	Character Height	Illuminated Color	Buss Polarity*	Pins/ Leads	Typical Vf @ If (mA)	Typical mcd @ mA	Wavelength nm	Decimal Point #	Pricing 1	10	100	1000
173833	HP5082-7300	—	.290"	Red	4x7 Numeric	8	5.0 @ 170	.03 @ 20	660	RHDP	$7.95	$6.39	$4.79	$3.39
32951	TIL311	37161	.300"	Red	4x7 Hex character	11	5.0 @ 5	0.1 @ 5	660	—	16.95	14.35	12.92	11.62
118906	LTP747R	37161	.680"	Orange Red	5 x 7 AC/CR	12	1.7 @ 20	0.2 @ 20	655	—	1.95	1.55	1.17	.82
183265	LMD5821ASR-20	—	2.3"	Red	5 x 8 CC/AR	14	1.7 @ 20	12 @ 20	660	—	4.95	4.49	3.95	3.49

* CA-Common Anode/CC-Common Cathode/AC-Anode Column/CR-Cathode Row/AR-Anode Row # LHDP-Left Hand Decimal Point / RHDP-Right Hand Decimal Point

velleman

Scrolling Message Kit

Create your own scrolling message with this 35-LED graphic display kit. Press "SET" to change a particular character, "UP or DOWN Arrow" to select the character, and end your scrolling message with the "<" character.



- 35-LED display • Maximum 16 characters
- Adjustable scrolling speed
- Size: 3.5"L x 2.6"W x 1.8"H

Requires: 9 to 12VDC@20mA (recommend P/N 100095, pg 61)

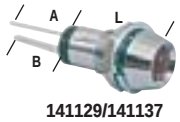
Part No.	Product No.	1	10
200310	MK124	$24.95	$22.45

Panel Mount LED Indicators

- Easy panel installation
- Panel/status/ instrument indicators
- Vf @ If: 2V @ 20mA
- Color: red
- Chrome housing



141111



141129/141137

Part No.	Mfr. Cross Ref. No.	LED Size	Dimensions (in.) L	A	B	Mounting Hole	Pricing 1	10	100	1000
141111	L922SRD	T1	.56	.34	.25	.23"	$.79	$.65	$.55	$.45
141129	L913RD	T1	.56	.39	.32	.24"	.89	.79	.71	.55
141137	L917RD	T1 ¾	.70	.55	.47	.31"	.89	.79	.71	.55

16 x 4 Parallel LCD Module



- 16 x 4 character display (.78"H)
- Character font: 5 x 8 dots
- Input data: 4-bit or 8-bit interface available
- Display size: 2.4"L x 1.0"W x 0.06"T
- Module size: 3.4"L x 2.4"W x 0.25"T

Point Six

Requires: 4.5V @ 2mA wall transformer (recommend P/N 164101, pg 60)

Part No.	Description	1	10	25
151933	16 x 4 parallel LCD	$24.95	$22.49	$19.95

20 Characters x 4 Lines Serial VFD Display



- Bar graphs, large digits, multiple displays, software contrast control, auto line wrapping and scroll feature
- Power off supply current: 9mA
- Serial input of1200–19,200bps (jumper selectable)
- Display size: 2.8"L x .82"W
- Module size: 3.9"L x 2.4"W x 1.0"T

Requires: 5VDC @ 275mA typical (recommended P/N 164101, pg 60)

Includes: Manual and software

Part No.	Product No.	1	10	25
174158	VFD2041	$159.95	$143.95	$129.95

Serial LCD Interface Module

For Parallel LCD Displays with Hitachi 44780 Chipset



- Supports 1 x 8 thru 4 x 20 LCD display formats
- Provides word wrap, control character processing for display blanking, cursor blanking, up-down-left-right cursor controls
- Compatible with P/Ns 151933, 171715 and 198803 (above & pg 35) • Size: 1.5"L x 1.0"W

TRISYS

Part No.	Description	1	10	25
157981	LCD serial module	$22.95	$20.95	$18.95

0.6" High 3½-Digit & 4½-Digit LCD Digital Panel Meters



175951 146835 123140

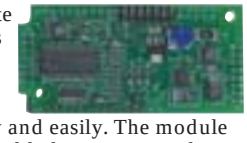
- Input Ranges: 200mV, 20V, 200V, 500V
- Supply voltage: 9-12VDC (recommend 9V battery P/N 151095, pg 168)
- Automatic polarity indication
- Input impedance: >100MΩ • Accuracy: ±0.5%
- Size: 2.7"L x 1.7"W **146835:** Backlit display

Includes: Bezel

Part No.	Description	1	10	25
175951	"1999" LCD DPM ..	$12.95	$11.95	$10.95
146835	"1999" LCD DPM	17.95	15.95	13.95
123140	"19999" LCD DPM ..	27.95	24.95	22.49

LCD MSG II Discrete LCD Message Module NEW

TRISYS



A simple LCD discrete module that provides the user the ability to display custom messages on a standard LCD module, quickly and easily. The module contains its own embedded processor and non-volatile storage for up to 16 user-definable messages each containing up to 160 characters, plus a 25-character memo message for product I.D. or serialization.

- Switch, up/down, automatic, ticker tape
- Individual message blink attribute
- LCD standalone self-test display
- Negative 5V generation for extended temp. range LCD modules • Provides serial programmability
- Selectable communication ports/display formats
- Windows® message editor: full copy, cut and paste operations
- Compatible with P/Ns 151933, 171715 and 198803 (left & pg 35)

Part No.	Description	1	10	25
199646	MSG II	$49.95	$44.95	$39.95

VL 0.5" High 3½ & 4-Digit Field Effect LCD Displays



- Compatible with socket P/N 78641 (2), pg 83
- Pin spacing: 0.1" centers
- 40-pin package (no connector required)
- Size: 2.0"L x 1.2"H x 0.1"D



17110: 4-digit LCD 17110

- Digital multimeters, thermometers, pressure gauges, timers, clocks (12 or 24 hour format) and frequency counters

32230: 3½-digit LCD



32230

- Digital voltmeters, thermometers, pressure gauges, timers, clocks
- Can be used with Intersil's 7106CPL (P/N 43748, pg 9)

Part No.	Description	1	10	25
17110	4-digit LCD w/ pins ..	$12.95	$11.49	$9.95
32230	3½-digit LCD w/ pins ..	7.85	7.10	6.35

Industrial Panel Meter

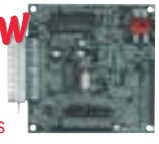
0 to 1mA DC



- Low cost, high quality
- Basic DC accuracy to 0.3%
- UL recognized
- Direct replacement for: Yokogawa, Modutec, Jewell, WPIC, Hoyt, Crompton, Brighton
- DC Range: 0 – 1mA Taut Band
- Size: 1.5"L x 1.7"W x 1.7"H • Depth: 1.2"

Part No.	Product No.	1	10	25
171897	PMG6S	$12.95	$11.95	$10.95

DVM Module Board (Stand-Alone)



NEW

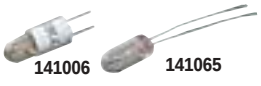
- 3½ to 6½-digit measurement display resolution
- Up to 7 full digits plus sign (±9999999) display
- Board size: 3.0"L x 3.0"W
- See page 175 for complete specs

Part No.	Mfr. Cross Ref. No	1	10
208653	MB203A2V	$109.95	$104.95

Incandescent and Neon Lamps

Incandescent and Neon Lamps

* P/N 141006/141073/141065: C2R filament type



141006 141065

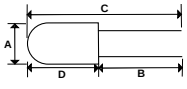


Fig. 1

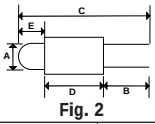


Fig. 2

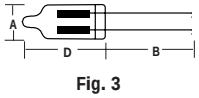


Fig. 3

Part No.	Mfr. Cross Ref. No.	Fig.	Size	Description	Dia.(in./mm) A	Dimensions (in.) B	C	D	E	Vf @ If	Pricing 1	10	100	1000
141057	6833	1	T ¾	Incandescent lamp (1" lead wire)	.08/2.2	1	1.2	0.2	—	5V @ 60mA	$1.29	$1.15	$.99	$.95
141065	2200*	1	T1 ¾	Incandescent lamp (1" lead wire)	.19/4.9	1	1.5	0.5	—	5V @ 60mA	.49	.45	.39	.35
141073	2182*	1	T1 ¾	Incandescent lamp (1" lead wire)	.19/4.8	1	1.5	0.5	—	14V @ 80mA	.49	.39	.29	.20
141006	7361*	2	T1 ¾	Incandescent lamp bi-pin base	.18/4.7	0.3	0.8	0.3	0.3	5V @ 60mA	1.29	1.15	.99	.95
27351	NE2	3	—	Neon lamp (req. 150kΩ res. in series)	.197/5	1.2	—	0.38	—	65-120VDC @ 130-470mA/ 65-120VAC @ 150-500mA	.49	.39	.29	.25

JKL Single-Lead Tipless-Type Fluorescent Lamps

World's smallest fluorescent and ultra violet lamps. Assure you of bright, uniform output, long-life, cool operation and unmatched reliability.



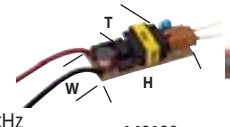
142244

142244: compatible with P/N 142252 (right) • Lamp current: 5.0mA (12 max.)
146165: compatible with P/N 146190 (right) • Lamp current: 5.0mA

Part Number	Starting Volt. (Vrms)	Lamp Volt. (Vrms)	Intensity (nt)	Size (in.) L x Dia.	Pricing 1	10	25
142244	390	170	3500	2.0 x .25	$13.95	$12.49	$10.95
146165	1200	520	28000	10.0 x .12	13.95	12.49	10.95

JKL Fluorescent Lamp Power Supplies

These DC inverters are designed especially for cold cathode fluorescent lamps.



146190



142252

- Output voltage:
  146190: 600Vrms @ 4mA, 30kHz
  142252: 850Vrms @ 5.5mA, 20kHz

Part No.	Product No.	Input Voltage	PCB Size (W x H x T)	1	10	25
146190	65010	5VDC @ 200mA	1.7" x 0.8" x .04"	$14.95	$13.45	$11.99
142252	12200	12VDC @ 260mA	1.8" x 0.8" x .04"	15.95	14.49	12.95

16 Characters x 2 Lines Serial LCD Module



- Backlight control, bar graphs, large digits, multiple displays, software contrast control, auto line wrapping, and auto scroll feature
- Serial input at 1200–19,200bps (jumper selectable)
- Connect 16 modules using same 2 wire interface
- Backlight supply current: 40mA typical
- Power requirement: 5VDC @ 9mA (recommend P/N 164101, pg 60)
- Display size: 2.5"L x 0.7"W • Weight: 0.6 lbs.
- Module size: 3.2"L x 1.5"W x 0.8"T

Includes: Manual and software

Part No.	Description	1	10	25
174166	16 x 2 w/ interface	$59.95	$54.95	$49.95

20 x 4 Serial LCD Modules



150957



157323

- 20 characters x 4 line display with large digit mode
- Backlight control, bar graphs, large digits, multiple displays, software contrast control, auto line wrapping and auto scroll feature
- Backlight supply current: 90mA typical
- Serial input at 1200–19,200bps (jumper selectable)
- Connect 16 modules using the same 2 wire interface
- Display size: 3.0"L x 1.0"W • One-year warranty

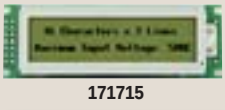
Includes: Manual and software

150957: 20 x 4 Serial LCD Module
- Power requirement: 5VDC @ 10mA typical (recommend P/N 164101, pg 60)
- Module size: 3.9"L x 2.4"W x 0.7"T
- Weight: 0.9 lbs.

157323: 20x4 Serial LCD Module with keypad Interface
- Power requirements: 5VDC @ 16mA typical (recommend P/N 164101, pg 60)
- Module size: 3.7"L x 2.4"W x 1.1"T
- Weight: 0.6 lbs.

Part No.	Description	1	10	25
150957	LCD module	$89.95	$80.95	$72.95
157323	Module w/ interface	109.95	99.95	89.95

LCD Parallel Displays



171715



171723

- 8-bit interface data bus
- Controller: KS0066U or equivalent
- Character font size: 0.125"W x 0.200"H
- Maximum input voltage: 5.3VDC
- Operating input voltage: 5VDC (recommend P/N 164101, pg 60)

171715: 16 Characters x 2 Lines
- 14-pin/terminals • Display size: 2.5"L x 0.7"W
- Module size: 3.4"L x 1.2"W x 0.5"T

171723: 20 Characters x 2 Lines
- 16-pin/terminals • Display size: 3.3"L x 0.7"W
- Module size: 4.6"L x 1.5"W x 0.4"T

Part No.	Product No.	1	10	25
171715	AC162A	$19.95	$17.95	$15.95
171723	AC2 02A	23.39	21.00	18.95

20 x 4 LCD Serial Display



SALE

- Terminal style serial input
- Character display type
- 20 characters x 4 lines
- White EL backlight
- Low power 3V design
- 5 x 8 dot matrix
- Super twisted nematic display
- Gray display color mode
- Module size: 3.5"L x 2.0"W x 0.3" Thick

Part No.	Description	1	10
181809	LCD module	$55.25	$49.75

Graphics LCD Serial Display

40 characters x 8 lines Maximum



- 40 characters x 8 lines max. display with 5 x 7 font
- Backlight control, bar graphs, large digits, multiple displays, software contrast control, auto line wrapping, and auto scroll feature
- Pixel layout: 240 x 64 pixels
- Serial input: 1200–19,200bps (jumper configurable)
- Backlight supply current: 160mA typical
- Power requirement: 5VDC @ 31mA typical (recommend P/N 164101, pg 60)
- Display size: 5.2"L x 1.5"W • Weight: 0.9 lbs.
- Module size: 7.1"L x 2.6"W x 0.7"T

Includes: Manual and software

Part No.	Description	1	10	25
174182	Graphics display	$189.95	$175.95	$159.95

16 Characters x 1 Line Parallel LCD Module



SALE

- Super twisted nematic gray, transflective type
- Easily interfaced to a microprocessor with common 4-bit and 8-bit parallel inputs/outputs
- Connected at general purpose CMOS signal level
- Built-in character generator ROM (225 characters @ 5 x 7 dot matrix pattern; RAM (8 different user programmed); and display data RAM (80 x 8-bits)
- Display clear, cursor home, display ON/OFF, cursor ON/OFF, blink character, cursor shift, and display shift feature • Without backlight
- Module size: 3.1"L x 1.4"W x 0.3"T

Requirements: 4.5VDC – 5.5VDC @ 600mA wall transformer (recommend P/N 171301, pg 60)

Part No.	Description	1	10	25
198803	16 x 1 display	$13.95	$10.46	$7.35

Micro Electronics LCD Dot Matrix Graphic Display



- 128 x 64 dot matrix display
- Display can be programmed to create a variety of sizes
- STN yellow green mode
- Operating voltage: 5V @ 1mA
- 180˚ viewing angle
- Built-in LCD driver IC: KS0708
- Easy interface with 8-bit MPU
- Module size: 3.0"W x 2.0"H x 0.1"T

Part No.	Description	1	10
163176	Dot matrix display	$44.95	$39.95

Scott Edwards Electronics, Inc.

Serial LCD Modules

Ideal for use w/ BASIC Stamps (pg 169), 80C52-BASIC controllers (pg 10) and PCs!

- Includes instruction codes for character generation, cursor control, printing, etc. Examples for Stamps in PBASIC included.
- One-year warranty

16 characters x 2 lines Integrated Display



- Terminal style 1200–9600bps serial input with 16-byte input buffer
- Four inputs for switches/buttons that can be read via the serial connection
- EEPROM storage of settings, six custom characters, and a text screen that can be automatically displayed at startup (splash screen)
- Serial control of the standard LED backlight
- Low current draw; 5mA (backlight off) to 40mA (backlight on and bright)
- Power requirement: 4.8 – 5.5VDC @ 5mA (recommend P/N 164101, pg 60)
- Module size: 3.2"L x 2.0"W x 0.5"T

Part No.	Description	1	10	25
150990	LCD module.	$59.95	$53.95	$47.95

16 characters x 2 lines LCD Serial Backpack®



- High-contrast supertwist display
- Serial "backpack" accepts RS232, or inverted CMOS, TTL at 2400 or 9600bps
- Power requirement: 4.8 – 5.5VDC @ 3mA (recommend P/N 164101, pg 60)
- Module size: 3.1"L x 1.4"W x 0.7"T

Part No.	Description	1	10	25
133129	LCD module	$54.95	$49.95	$44.95

20 Characters x 4 Lines Graphics LCD



- 120 x 32 pixel graphics screen
- Terminal style 2400 or 9600 bps serial input
- EEPROM stores text font and 6 full-screen images
- Supports multiple fonts and font sizes
- Included utility program lets you create and download pictures and fonts
- Power requirement: 9V battery or 5V power supply (recommend P/N 164101, pg 60)
- Module size: 3.1"L x 1.9"W x 0.8"T

Includes: Battery snap connectors, sample programs and manual on disk

Part No.	Description	1	10
158166	20 x 4 serial LCD display	$129.95	$116.95

40 characters x 4 lines LCD Serial Backpack®



- High-contrast supertwist display with unique "big character": backlet mode – prints 1" numbers and letters automatically
- Serial input at 1200, 2400, 4800 or 9600bps
- Power requirement: 5VDC @ <10mA (recommend P/N 164101, pg 60)
- Module size: 7.5"L x 2.2"W x 0.9"T

Part No.	Description	1	10
136485	40 x 4 serial LCD display	$179.95	$162.95

Part Number Color Code: New Sale Refurbished Closeout


163475


102921

Call for additional OEM PRICING – we carry major manufacturers.

- Low profile
- Ball and sleeve bearings
- Power input by lead wires
- PBT black thermo plastic frame and impeller
- Agency approved fans
- Low power consumption
- Low acoustical noise rating

SALE


102939


134586

Part Number	Manufacturer	Product Number	Voltage	Dimensions (W" x H" x D")	Air Flow (CFM)	Bearing Ball/Sleeve	Current (mA)	Power (Watts)	Agency Approvals	Noise (dBA)	Connection (Leads)	Pricing 1	10	50	100
163475	Nidec	C34427-55APP	5 VDC	1.00 x 1.00 x 0.40	0.5	Ball	90	0.45	—	22	2"	$4.95	$3.95	$2.95	$2.09
131246	Adda	AD0205LX-G50	5 VDC	1.00 x 1.00 x 0.40	1.8	Sleeve	100	0.6	UL/CSA/CE	18.7	5.5"	10.95	9.95	8.95	7.95
206156	Sunon	KDE0502PFB3-8	5 VDC	1.00 x 1.00 x 0.40	1.83	Ball	60	0.3	UL/CSA/TUV/CE	23	5"	11.95	10.95	9.95	8.95
142851	Shicoh	0410N-5E	5 VDC	1.60 x 1.60 x 0.40	4.2	Ball	190	0.9	—	23	2.5"	6.95	6.25	5.59	4.95
196373	Sunon	KD0504PFB3-8	5 VDC	1.60 x 1.60 x 0.40	5.5	Ball	230	1.2	UL/CUL	23	2"	6.95	6.25	5.59	4.95
102921	Sunon	KD0504PFS2	5 VDC	1.60 x 1.60 x 0.40	6.3	Sleeve	250	0.6	UL/CSA/TUV	24.3	12"	7.95	6.95	6.25	5.59
171678	Delta	AFB0405HHD	5 VDC	1.60 x 1.60 x 0.80	8.6	Ball	700	2.0	—	36	2.5"	4.95	3.95	2.95	2.09
207061	Adda	AD0505MB-G90	5 VDC	2.00 x 2.00 x 0.40	10.5	Ball	120	0.7	UL/CSA/CE	24	11"	7.95	6.95	6.25	5.59
204433	Toyo	USTF802505HW	5 VDC	3.15 x 3.15 x 1.00	36	Ball	650	2.0	UL/TUV/CE	29	12"	7.95	6.95	6.25	5.59
102912	Sunon	KD1202PFB2-8	12 VDC	1.00 x 1.00 x 0.40	2.0	Ball	60	0.7	UL/CSA/TUV	30	6"	12.95	11.95	10.95	9.95
203166	Adda	AD0312LX-G50	12 VDC	1.20 x 1.20 x 0.40	3.0	Hypro	70	0.84	UL/CUL/TUV/CE	20	5.5"	9.95	8.95	7.95	6.95
207052	Adda	AD0412MB-K90	12 VDC	1.60 x 1.60 x 0.25	5.5	Ball	60	0.72	UL/CSA/TUV/CE	25	5"	6.95	6.25	5.59	4.95
191476	Common Wealth	FP-108HX/DC	12 VDC	1.60 x 1.60 x 0.40	4.0	Sleeve	60	0.72	UL/CSA/TUV/CE	25	12"	4.95	4.49	3.95	3.55
102939	Jamicon	JF0410S1H	12 VDC	1.60 x 1.60 x 0.40	6.3	Sleeve	110	1.3	UL/CSA/TUV/CE	34.7	10.5"	5.95	5.35	4.79	3.95
189691	Sunon	KD1204PFS2	12 VDC	1.60 x 1.60 x 0.40	6.3	Sleeve	70	0.9	UL/CSA/TUV	24	12"	6.95	6.25	5.59	4.95
161699	Sunon	KD1204PFB2-8	12 VDC	1.60 x 1.60 x 0.40	6.3	Ball	70	0.6	UL/CSA/TUV	30	12"	7.95	6.95	6.25	5.59
174131	Jamicon	JF0413S1M	12 VDC	1.60 x 1.60 x 0.50	3.8	Sleeve	90	1.1	UL/CSA/TUV	29	14"	2.95	2.69	2.37	2.15
174123	Jamicon	JF0413B1M	12 VDC	1.60 x 1.60 x 0.50	3.8	Ball	90	1.1	UL/CUL/TUV	28	14"	6.95	6.25	5.59	4.95
154851	NMB	1606KL-04W-B50	12 VDC	1.60 x 1.60 x 0.60	8	Ball	110	1.0	UL/CSA/VDE	34	5"	6.95	6.25	5.59	4.95
136178	Adda	AD0412MS-C70	12 VDC	1.60 x 1.60 x 0.80	5	Sleeve	110	1.32	UL/CSA	23	9"	4.95	3.95	2.99	2.09
195899	Sunon	KDE1204PKS2	12 VDC	1.60 x 1.60 x 0.80	6.5	Sleeve	70	0.9	UL/CSA/TUV	25.5	12"	6.95	5.59	4.19	2.95
75344	Delta	DFB0412M	12 VDC	1.60 x 1.60 x 0.80	7.3	Ball	80	0.8	UL/CSA/VDE/CE	28	4.5"	6.95	6.25	5.25	4.75
206164	Sunon	KDE1204PKBX-8	12 VDC	1.60 x 1.60 x 0.80	10	Ball	90	1.1	UL/CSA/TUV/CE	29.4	12"	8.95	7.95	6.95	5.95
195881	Common Wealth	FP-108G/DC(S1)	12 VDC	1.60 x 1.60 x 0.80	7.6	Ball	160	1.92	UL/CSA/CE	32	12"	7.95	6.95	6.25	5.59
206447	Delta	DF0412H	12 VDC	1.60 x 1.60 x 0.80	8.5	Ball	100	1.0	UL/CSA/VDE	32	8"	7.95	6.95	6.25	5.59
206965	Adda	AD0512HB-D71	12 VDC	2.00 x 2.00 x 0.60	11.7	Ball	100	1.2	UL/CUL/TUV/CE	28.5	5"	8.95	7.95	6.95	6.25
139601	Adda	AD0512HS-D71	12 VDC	2.00 x 2.00 x 0.60	12	Sleeve	100	1.2	UL/CSA/CE	29	12"	7.95	6.95	6.25	5.59
206172	Sunon [1]	KDE1205PHB2-TM	12 VDC	2.00 x 2.00 x 0.60	12.7	Ball	140	1.7	UL/CSA/CE	27.8	11"/3 leads	8.95	7.95	6.95	6.25
147491	Shicoh	0610-12HH	12 VDC	2.36 x 2.36 x 0.40	16.2	Ball	150	1.8	—	38	5"	7.95	6.95	6.25	5.59
104205	Panaflo	FBA06T12L	12 VDC	2.36 x 2.36 x 0.60	12	Sleeve	130	1.1	—	24	6"	6.95	5.59	4.19	2.95
195944	Adda	AD612MS-D71GL	12 VDC	2.36 x 2.36 x 0.60	14.2	Sleeve	110	1.32	UL/CSA/TUV/CE	28.8	6"	7.95	6.39	4.79	3.95
151327	NMB	2406KL-04W-B40-L00	12 VDC	2.36 x 2.36 x 0.60	16	Ball	130	1.6	UL/CSA/VDE/CE	31	9"	7.95	6.95	6.25	5.59
175046	Globe Motors	D24-B08A-04W3-000	12 VDC	2.36 x 2.36 x 0.80	10.6	Ball	90	0.8	UL/CSA/TUV/CE	22	13"	5.95	4.79	3.59	2.49
144160	Adda	AD0612LB-C70GL	12 VDC	2.36 x 2.36 x 0.80	12.6	Ball	80	1.0	UL/CSA/TUV	22.7	6"	7.49	6.75	6.07	5.45
189595	Sunon	KD1206PKS2	12 VDC	2.36 x 2.36 x 0.80	16.5	Sleeve	150	1.8	UL/CSA/TUV/CE	31	12"	5.95	4.79	3.59	2.49
185818	Cheng	CHA6012DB	12 VDC	2.36 x 2.36 x 0.90	20.5	Ball	180	2.5	UL	33	12"	5.95	4.75	3.55	2.49
195901	Jamicon	JF0625S1L	12 VDC	2.36 x 2.36 x 1.00	15.3	Sleeve	170	2.04	UL/CSA/TUV	25.3	10"	3.95	3.55	3.19	2.85
75352	Common Wealth	FP108FDC12VS2	12 VDC	2.36 x 2.36 x 1.00	15.5	Sleeve	110	1.3	UL/CSA/TUV/CE	25	12"	5.95	4.79	3.59	2.49
195928	Jamicon	JF0625S1M	12 VDC	2.36 x 2.36 x 1.00	17.6	Sleeve	200	2.4	UL/TUV/CE	28.5	10"	4.95	3.95	2.95	2.09
136143	Delta	SB0612M	12 VDC	2.36 x 2.36 x 1.00	17.7	Sleeve	200	2.4	UL/CSA/VDE	26.5	5"	4.95	4.49	3.75	3.25
147029	Nidec	TA225DC-M33455-16	12 VDC	2.36 x 2.36 x 1.00	20	Ball	220	2.6	UL/CSA	47	11"	5.95	4.75	3.59	2.50
102947	Jamicon	JF0625S1H	12 VDC	2.36 x 2.36 x 1.00	20.5	Sleeve	230	2.7	UL/CSA/TUV	30.5	11"	5.95	4.79	3.59	2.49
150421	Jamicon	JF0625B1H	12 VDC	2.36 x 2.36 x 1.00	20.5	Ball	230	2.7	UL/CSA/TUV	30.5	10"	5.95	5.35	4.79	4.25
191548	CommonWealth	FP108FDC12VS1B	12 VDC	2.36 x 2.36 x 1.00	21	Ball	130	1.6	UL/CSA/TUV/CE	30	12"	6.95	6.25	5.59	4.95
195910	Sunon	KD1206PTS1	12 VDC	2.36 x 2.36 x 1.00	21.7	Sleeve	190	2.3	UL/CSA/TUV	34	12"	6.95	5.59	4.19	2.95
195936	Adda	AD7512HB	12 VDC	2.98 x 2.98 x 1.18	10.3	Ball	240	2.88	CE	38.5	12"	11.95	10.95	9.95	8.95
134586	Delta [2]	BFB0712H	12 VDC	2.98 x 2.98 x 1.18	11.3	Ball	360	2.6	UL/CSA/TUV/VDE	38	4"	10.95	8.89	7.55	6.39
109081	Adda	AD0812HS-D71	12 VDC	3.15 x 3.15 x 0.60	29	Sleeve	190	2.3	UL/CSA/TUV/CE	31.4	12"	8.95	7.95	6.95	6.25
141920	Adda	AD0812HB-C70	12 VDC	3.15 x 3.15 x 0.80	27.3	Ball	240	2.9	UL/CSA/CE	34	12"	11.95	9.55	7.17	4.99
16993	Various [3] *	FAN7315SL	12 VDC	3.15 x 3.15 x 1.00	25-40*	Sleeve	120-200*	1-2*	UL/CSA*	25*	4-12"*	5.95	5.35	4.79	3.95
75361	Various*	FAN6315BL	12 VDC	3.15 x 3.15 x 1.00	25-40*	Ball	120-200*	1-2*	UL/CSA*	25*	4-12"*	4.95	4.49	3.95	3.49
131748	NMB	3110KL-04W-B10	12 VDC	3.15 x 3.15 x 1.00	25	Ball	140	1.3	UL/CSA	25	9"	6.95	5.95	5.25	4.75
154288	Sunon	KDE1208PTS3-6	12 VDC	3.15 x 3.15 x 1.00	29.4	Sleeve	120	1.4	UL/CSA/TUV/CE	24.5	5.5"	3.95	3.55	3.19	2.79
195952	Panasonic	FMB-08A12M	12 VDC	3.15 x 3.15 x 1.00	30	Sleeve	124	1.49	UL/CSA	28	11"	5.95	4.79	3.59	2.49
123529	Adda	AD0812MS-A70GL	12 VDC	3.15 x 3.15 x 1.00	32	Sleeve	150	1.8	UL/CSA/TUV	28.3	12"	5.95	5.35	4.79	3.95
195987	Panasonic	FBA-08A12M	12 VDC	3.15 x 3.15 x 1.00	32.1	Sleeve	170	1.49	UL/CSA	28	4.5"	5.95	4.79	3.59	2.49
166959	NMB (Smart Fan)†	3110NL-012Q340-00	12 VDC	3.15 x 3.15 x 1.00	35	Ball	290	3.5	UL/CSA	35	2"	8.95	7.15	5.39	3.75

[1] **206172:** Locked rotor alarm
[2] **134586:** Blower type fan
[3] **16993:** Replacement for the PC/XT computer power supply fan
† Temperature control: P/N 166959 (40˚C)
* Manufacturers & specifications may vary

DC Brushless Fans continued on page 37

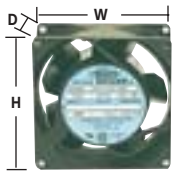

102955


75467

Call for additional OEM PRICING – we carry major manufacturers.

- Low profile
- Ball and sleeve bearings
- Power input by lead wires
- PBT black thermo plastic frame and impeller
- Agency approved fans
- Low power consumption
- Low acoustical noise rating

SALE



102875


191628

Part Number	Manufacturer	Product Number	Voltage	Dimensions (W" x H" x D")	Air Flow (CFM)	Bearing Ball/Sleeve	Current (mA)	Power (Watts)	Agency Approvals	Noise (dBA)	Connection (Leads)	Pricing 1	10	50	100
195979	Cheng	CHA8012CS-L	12 VDC	3.15 x 3.15 x 1.00	37.1	Sleeve	170	2.04	UL	32	13"	$3.95	$3.59	$3.19	$2.79
195961	Protechnic	MGL8012HS	12 VDC	3.15 x 3.15 x 1.00	38.3	Sleeve	200	2.88	UL/CSA/TUV	31	13"	6.95	5.55	4.19	2.95
191599	NMB	3110KL-04W-B50	12 VDC	3.15 x 3.15 x 1.00	39	Ball	230	2.7	CSA	34	10"	6.95	5.59	4.19	2.95
185834	Panaflo	FBM08A12H	12 VDC	3.15 x 3.15 x 1.00	39.6	Sleeve	220	2.1	—	32	11"	6.95	5.59	4.19	2.95
206181	Sunon	KDE1208PTS1-6	12 VDC	3.15 x 3.15 x 1.00	42	Sleeve	220	2.6	UL/CSA/TUV/CE	34	9"	7.95	6.95	6.25	5.59
185826	NMB [4]	3110KL-04W-B69	12 VDC	3.15 x 3.15 x 1.00	42	Ball	340	3.1	UL/CSA/VDE/CE	35	13"/3 leads	6.95	5.59	4.19	2.95
102955	Sunon	KD1208PTB1-6	12 VDC	3.15 x 3.15 x 1.00	42.5	Ball	220	2.6	UL/CSA/TUV/CE	33.5	12"	7.95	6.95	6.25	5.59
172460	Nidec [3]	TA300DCM33406-68	12 VDC	3.15 x 3.15 x 1.00	43	Ball	290	3.5	UL/CSA	41	11"/3 leads	7.95	6.92	5.95	4.95
189755	Cheng	CHA8012DB	12 VDC	3.15 x 3.15 x 1.00	44.3	Ball	300	3.6	UL	37	2" w/ conn.	4.95	3.95	2.95	2.15
108425	Cheng	CHA9212AB	12 VDC	3.63 x 3.63 x 1.00	31	Ball	120	1.7	—	24	6" w/ conn.	5.95	5.35	4.79	4.25
191601	NMB	3610KL-04-B20	12 VDC	3.63 x 3.63 x 1.00	34	Ball	120	1.3	UL/CSA/TUV	27	12"	5.95	4.79	3.59	2.49
195995	Innovative	SP922512H	12 VDC	3.63 x 3.63 x 1.00	42.3	Sleeve	320	3.12	UL/CSA/TUV/CE	40	12"	5.95	5.35	4.79	4.29
196015	Cheng	CHA9212CB	12 VDC	3.63 x 3.63 x 1.00	44.1	Ball	190	2.28	UL/CSA	31	12"	6.95	6.25	5.59	4.95
75441	Common Wealth	FP108BDC12VS1	12 VDC	3.63 x 3.63 x 1.00	45	Sleeve	320	3.1	UL/CSA/TUV/CE	32	10"	5.95	4.79	3.59	2.49
196007	Jamicon	JF0925S1M	12 VDC	3.63 x 3.63 x 1.00	45.4	Sleeve	200	2.4	UL/CSA/TUV/CE	34	12"	5.95	4.79	3.59	2.49
196023	Jamicon	JF0925B1M	12 VDC	3.63 x 3.63 x 1.00	45.4	Ball	200	2.4	UL/CSA/TUV	95	10"	6.95	6.25	5.59	4.95
154641	Nidec	TA350DC-M33422-16	12 VDC	3.63 x 3.63 x 1.00	48	Ball	290	3.48	UL/CSA	43	12"	6.95	6.25	5.59	4.95
206199	Sunon	KDE1209PTS1-6	12 VDC	3.63 x 3.63 x 1.00	48.5	Sleeve	190	2.3	UL/CSA/TUV/CE	32.5	12"	6.95	6.25	5.59	4.95
189780	Delta	DFB0912H	12 VDC	3.63 x 3.63 x 1.00	49.5	Ball	300	3.1	UL/CSA/TUV	35	5"	6.95	5.59	4.19	2.95
172478	Delta [6]	DFB0912H-R00	12 VDC	3.63 x 3.63 x 1.00	49.5	Ball	300	3.1	UL/CSA,/VDE/CE	35	8"/3 leads	6.95	5.90	4.75	3.78
190983	Sunon	KD1209PTB1-6A	12 VDC	3.63 x 3.63 x 1.00	51	Ball	220	2.6	UL/CSA/TUV	34	12"	8.95	7.95	6.95	6.25
116476	Jamicon	JF0925S1H	12 VDC	3.63 x 3.63 x 1.00	52	Sleeve	350	4.2	UL/CSA/TUV	37	10"	6.95	6.25	5.59	4.95
162739	NMB (Smart Fan)†	3610KL-04W-B56	12 VDC	3.63 x 3.63 x 1.00	55	Ball	430	3.8	UL/CSA/VDE/CE	37	10"/3 leads	7.95	6.95	6.25	5.59
174140	Common Wealth	FP108MS3	12 VDC	4.68 x 4.68 x 1.00	54	Sleeve	140	1.7	UL/CSA/TUV/CE	25	12"	5.95	5.35	4.79	4.29
75467	NMB	4710NL-04W-B30	12 VDC	4.68 x 4.68 x 1.00	70	Ball	320	2.9	UL/CSA/VDE/CE	34	12"	7.95	6.95	6.25	5.59
174916	NMB	4710NL-04T-B30	12 VDC	4.68 x 4.68 x 1.00	70	Ball	320	2.9	UL/CSA/VDE/CE	34	terminals	3.95	3.49	3.19	2.89
174086	Jamicon	JF1225S1M	12 VDC	4.68 x 4.68 x 1.00	74	Sleeve	250	3.0	UL/CSA/CE	37	11"	4.95	4.49	3.95	3.55
102875	Delta	WFB1212H	12 VDC	4.68 x 4.68 x 1.00	86.5	Ball	360	4.3	UL/CSA/TUV	37.6	12"	9.95	7.95	5.95	4.19
174924	Globe Motors	D47-B10A-04T3-000	12 VDC	4.68 x 4.68 x 1.00	90	Ball	740	6.8	UL/CSA	39	terminals	5.95	5.35	4.79	4.29
163619	NMB (Smart Fan)†	4710NL012P535P0	12 VDC	4.68 x 4.68 x 1.00	90	Ball	740	8.9	—	38.5	12"	4.95	3.95	2.95	1.95
174941	Globe Motors [5]	D47-B15A-04T2-100	12 VDC	4.68 x 4.68 x 1.50	97	Ball	520	5.3	UL/CSA/TUV	40	terminals	4.95	4.49	3.95	3.49
174967	NMB [3]	4715KL-04W-B29	12 VDC	4.68 x 4.68 x 1.50	97	Ball	520	4.8	UL/CSA/TUV/CE	40	12"/3 leads	6.95	6.25	5.59	4.95
159020	Sunon	KDE1212PMS1-6A	12 VDC	4.68 x 4.68 x 1.50	107	Sleeve	570	6.8	UL/CSA/TUV	41	12"	12.95	11.95	10.95	9.95
163601	Delta (Smart Fan)†	WFC1212BE	12 VDC	4.68 x 4.68 x 1.50	108	Ball	650	6.6	UL/CSA/VDE	41.3	12"	12.95	11.95	10.95	9.95
94625	Sunon	KD1212PMB1-6A	12 VDC	4.68 x 4.68 x 1.50	108	Ball	570	6.8	UL/CSA/TUV/CE	24	12"	11.95	9.59	7.19	4.99
189851	Delta	WFB1212HE	12 VDC	4.68 x 4.68 x 1.50	108	Ball	490	5.9	UL/CSA/VDE/CE	41.3	12"	12.95	10.39	7.79	5.45
175020	NMB	6820PL-04W-B30	12 VDC	6.75 x 6.75 x 2.00	210	Ball	1900	21.8	UL/CSA/TUV	49	13"	14.95	13.49	11.95	10.95
206201	Sunon	KDE2404PKB3	24 VDC	1.60 x 1.60 x 0.80	6	Ball	30	0.7	UL/CSA/TUV/CE	24	12"	7.95	6.95	6.25	5.59
100909	Sunon	KD2404PKS2	24 VDC	1.60 x 1.60 x 0.80	6.5	Sleeve	50	1.2	UL/CSA/TUV/CE	25.5	12"	7.95	6.95	6.25	5.59
140661	NMB	2408NL-05W-B60	24 VDC	2.36 x 2.36 x 0.80	18.4	Ball	100	2.4	—	31	2"	4.95	3.95	2.95	2.25
174107	Jamicon	JF0625S2M	24 VDC	2.36 x 2.36 x 1.00	18	Sleeve	130	3.1	UL/TUV	28.5	10"	4.95	3.95	2.95	2.25
189860	Jamicon	JF0625B2M	24 VDC	2.36 x 2.36 x 1.00	18	Ball	130	3.1	UL/CSA/TUV/CE	28.5	10"	6.95	6.25	5.59	4.95
174078	Jamicon	JF0825S2M	24 VDC	3.15 x 3.15 x 1.00	32	Sleeve	130	3.1	UL/CUL/TUV	28	10"	3.95	3.55	3.19	2.75
191572	Nidec	TA300DC-M33411-16	24 VDC	3.15 x 3.15 x 1.00	35	Ball	130	3.1	UL/CSA	45	11"	5.95	5.35	3.99	2.80
162923	Jamicon	JF0825S2H	24 VDC	3.15 x 3.15 x 1.00	39.2	Sleeve	150	3.6	UL/CSA/TUV	31	10"	2.75	2.39	2.15	1.95
136160	Jamicon	JF0825B2H	24 VDC	3.15 x 3.15 x 1.00	39.2	Ball	150	3.6	UL/CSA/TUV	31	12"	7.95	6.95	5.59	4.95
189878	Sunon	KD2408PTB1-6A	24 VDC	3.15 x 3.15 x 1.00	42.5	Ball	220	2.6	UL/CSA/TUV/CE	36.5	12"	9.95	8.95	7.95	6.95
191628	Rotron Comair [7]	WT24B6X	24 VDC	3.15 x 3.15 x 1.25	15	Ball	190	4.6	—	51.4	21"	14.95	13.49	11.95	10.95
189886	NMB	3610KL-05W-B30	24 VDC	3.63 x 3.63 x 1.00	40.6	Ball	87	2.1	UL/CSA/VDE	34	12"	6.95	6.25	5.59	4.95
174094	Jamicon	JF0925S2H	24 VDC	3.63 x 3.63 x 1.00	52	Sleeve	190	4.6	UL/CSA	37	10"	7.95	6.35	4.79	3.39
206210	Sunon	KDE2412PTS3-6A	24 VDC	4.68 x 4.68 x 1.00	67	Sleeve	130	3.1	UL/CSA	35	12"	10.95	9.95	8.95	7.95
175281	Globe Motors	D47B10A05W2000	24 VDC	4.68 x 4.68 x 1.00	70	Ball	160	2.9	UL/CSA/TUV/CE	34	12"	11.95	10.95	9.95	8.95
206228	Sunon [3]	KDE2412PMS1-6A	24 VDC	4.68 x 4.68 x 1.00	107	Sleeve	310	7.4	UL/CSA/CE	41	11"	14.95	13.95	12.95	11.95
100968	Sunon	KDE2412PMB3-6A	24 VDC	4.68 x 4.68 x 1.50	83	Ball	140	3.4	UL/CSA/CE	35	12"	13.95	12.95	11.95	10.95
153411	Sunon	KD2412PMB2-6A	24 VDC	4.68 x 4.68 x 1.50	98	Ball	230	5.5	UL/CSA/TUV	36.5	12"	14.95	13.95	12.95	11.95
175476	NMB	6820PL-05W-B10	24 VDC	6.75 x 6.75 x 2.00	170	Ball	500	9.1	UL/CSA/TUV/CE	42	12.5"	9.95	8.95	7.95	6.95
166730	Mechatronics	A9225H48B	48 VDC	3.63 x 3.63 x 1.00	51	Ball	100	4.8	UL/CSA/TUV	36	13"	6.95	6.25	5.59	4.95
196710	PABST [4]	7118N/12	48 VDC	6.75 x 5.90 x 1.50	212	Ball	250	12.0	UL/CSA/VDE/CE	55	13"/3 leads	14.95	13.49	11.95	10.95

[3] **172460/174967/206228:** Locked rotor alarm
[4] **185826/196710:** Speed sensor
[5] **174941:** Locked rotor protected
[6] **172478:** Rotor locking input
[7] **191628:** Blower
† Temperature control: P/Ns 163619/163601 (35°C); P/N 162739 (50°C, 3 leads)

AC Tube Axial Fans

Part Number Color Code
New Sale Refurbished Closeout



111915


109874

Call for additional OEM PRICING – we carry major manufacturers.

- Rating 115 & 220VAC @ 50/60Hz
- Low acoustical noise rating
- Agency approved fans
- Ball and sleeve bearings
- Air flow from 10 to 226 CFM


106585


102891

Part Number	Manufacturer	Product Number	Voltage	Dimensions (W" x H" x D")	Air Flow (CFM)	Bearing Ball/Sleeve	Current (mA)	Power (Watts)	Agency Approvals	Noise (dBA)	Connection (Leads)	Pricing 1	10	50	100
162704	Toyo	USTF60301153W	115 VAC	2.36 x 2.36 x 1.18	11	Ball	38	4.0	UL/CSA/CE	29	12" leads	$14.95	$13.95	$12.95	$11.95
146077	Common Wealth	FP108AX-S1-B	115 VAC	3.15 x 3.15 x 1.00	23	Ball	140	14.0	UL/CE	29	12" leads	12.95	11.95	10.95	9.95
75408	Fulltech	UF80B12SWH	115 VAC	3.15 x 3.15 x 1.00	24	Sleeve	140	14.0	UL/CSA/TUV/CE	35	12" leads	12.95	11.95	10.95	9.95
111915	Fulltech	UF80A12SWL	115 VAC	3.15 x 3.15 x 1.50	25	Sleeve	110	12.0	UL/CSA/TUV/CE	32	12" leads	11.95	10.95	9.95	8.95
16977	Fulltech	UF80A12BWL	115 VAC	3.15 x 3.15 x 1.50	25	Ball	110	11.0	UL/CSA/TUV/CE	32	12" leads	12.95	11.95	10.95	9.95
16969	Fulltech	UF80A12BTL	115 VAC	3.15 x 3.15 x 1.50	25	Ball	110	12.0	UL/CSA/TUV/CE	32	terminals	13.95	12.95	11.95	10.95
102904	Fulltech	UF80A12BWH	115 VAC	3.15 x 3.15 x 1.50	29	Ball	120	12.0	UL/CSA/TUV/CE	36	12" leads	13.95	12.95	11.95	10.95
191564	Nidec	TA300AC-AC30477	115 VAC	3.15 x 3.15 x 1.50	32	Ball	104	9.0	UL/CSA/TUV	51	terminals	14.95	11.95	8.95	6.29
75432	Sunon	SF11592A-1092HSL	115 VAC	3.63 x 3.63 x 1.00	36	Sleeve	130	12.0	UL/CSA/TUV/CE	39	12" leads	13.95	12.95	11.95	10.95
75459	Sunon	SF11592A-1092HBT	115 VAC	3.63 x 3.63 x 1.00	37	Ball	110	12.0	UL/CSA/TUV/CE	40	terminals	14.95	13.95	12.95	11.95
124062	Sunon	SP101AT1122HBT	115 VAC	4.68 x 4.68 x 1.00	78	Ball	180	18.0	CSA/TUV/CE	46	terminals	14.95	13.95	12.95	11.95
118965	Fulltech	UF12A12BTL1	115 VAC	4.68 x 4.68 x 1.50	64	Ball	80	15.0	UL/CSA/TUV/CE	37	terminals	12.95	11.95	10.95	9.95
109874	Fulltech	UF12A12STL	115 VAC	4.68 x 4.68 x 1.50	81	Sleeve	150	15.0	UL/CSA/TUV/CE	38	terminals	10.95	9.95	8.95	7.95
111894	Common Wealth	FP108-1-S1/W	115 VAC	4.68 x 4.68 x 1.50	105	Sleeve	180	17.0	UL/CSA/CE	47	12" leads	11.95	10.95	9.95	8.95
106585	Common Wealth	FP108-1-S1/T	115 VAC	4.68 x 4.68 x 1.50	105	Sleeve	140	12.0	UL/CSA/CE	35	terminals	12.95	11.95	10.95	9.95
16934	Common Wealth	FP108-1-S1-B	115 VAC	4.68 x 4.68 x 1.50	105	Ball	200	17.0	UL/CSA/TUV/CE	47	terminals	13.95	12.95	11.95	10.95
206308	Adda	AA1281UB-AT	115 VAC	4.68 x 4.68 x 1.50	107	Ball	230	24	CE	48.1	terminals	13.95	12.95	11.95	10.95
102883	Sunon	SP100A-1123XBT	115 VAC	4.68 x 4.68 x 1.50	117	Ball	240	20.0	UL/CSA/TUV/CE	50	terminals	14.95	13.95	12.95	11.95
108724	Fulltech	UF15AC12BTH	115 VAC	6.75 x 5.90 x 1.50	211	Ball	230	28.0	UL/CSA/TUV/CE	58	terminals	29.95	26.95	23.95	21.49
189683	Fulltech	UF15PC12BTH	115 VAC	6.75 x 5.90 x 2.00	226	Ball	250	30.0	CSA	58	terminals	29.95	26.95	23.95	21.49
174932	NMB	3115FS-23T-B10	220 VAC	3.15 x 3.15 x 1.50	25	Ball	30	4.6	UL/CSA/TUV/CE	25	terminals	11.95	10.95	9.95	8.95
100917	Sunon	SF23080A/2083HSL	220 VAC	3.15 x 3.15 x 1.50	30	Sleeve	60	13.5	UL/CSA/TUV/CE	35	12" leads	12.95	11.95	10.95	9.95
175003	NMB	4715MS-23W-B10	220 VAC	4.68 x 4.68 x 1.50	50	Ball	45	6.0	UL/TUV/CE	28	12" leads	12.95	11.95	10.95	9.95
102891	Sunon	DP200A-2123XBT	220 VAC	4.68 x 4.68 x 1.50	117	Ball	120	21.0	UL/CSA/TUV/CE	50	terminals	14.95	13.95	12.95	11.95

Straight and Right-Angle 24" Fan Cords

- Cord type: SPT-1 (2) conductor black
- Volt. rating: 300V
- Temp.range: 60°C
- Fits all terminal fans

Part No.	Description	Length	1	10	100	250
28564	Straight socket cord	24"	$.89	$.75	$.69	$.65
104192	90° angle socket cord	24"	1.25	1.09	.99	.89


28564


104192

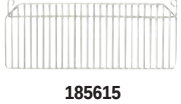
Fan Guards and Filters

Compatible with AC/DC Fans – pages 36, 37 & above

- All guards and filters fit all fans by matching the size dimension.
  Example: P/N 75408 fan (3.15") matches P/N 31923 metal guard (3.15").


123502


120037


185615


31923/123511


25734


138561/163459/196816


25726


138579/192874/130104

Part No.	Description	1	10	100	250
123502	1.60" metal (chrome) guard	$.63	$.49	$.42	$.39
163432	2.00" metal (chrome) guard	.65	.55	.43	.41
120037	2.36" metal (chrome) guard	.99	.85	.69	.59
185615	2.36" dual fan guard	.25	.23	.21	.19
31923	3.15" metal (chrome) guard	.79	.65	.52	.49
123511	3.63" metal (chrome) guard	.89	.75	.59	.55
25734	4.68" metal (chrome) guard	1.09	.89	.69	.65
138561	3.15" plastic guard with mesh	1.39	1.19	1.05	.95
163459	3.63" plastic guard with mesh	1.75	1.49	1.25	1.09
25726	4.68" plastic guard with mesh (old style)	1.39	1.19	1.05	.95
196816	4.68" plastic guard with mesh	1.95	1.75	1.49	1.25
138579	3.15" alum. washable filter	2.95	2.65	2.39	2.15
192874	3.63" alum. washable filter	3.25	2.95	2.65	2.39
130104	4.68" alum. washable filter	3.49	3.25	2.95	2.65



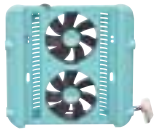
Opening an account is easy!!
Just give us a call and we'll take the information right over the phone.
Most accounts are approved within minutes!

Corporate Customers

Call 1-800-831-4242 for details today

PC COOLING FANS Page 155





Heat Sink Compound



167249

Thermally loaded silicone-based grease that improves transfer of energy across the metal to metal interface between transistor or rectifier to heat sink.

- Color: opaque white

Part No.	Product No.	1	10	100
196752	THM249 (1 oz.)	$4.95	$4.49	$3.95
167249	THM250 (2 oz.)	8.95	7.95	6.95

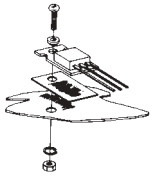
4-Oz. Tube of Heat Sink Compound



This silicone-free compound provides more effective heat transfer. Will not harden, dry out, melt, or contaminate wave solder baths.

Part No.	Product No.	1	10
169252	1978DP	$17.95	$15.95

Heat Sink Mounting Kits



34121



34139

- TO-3 and TO-220 heat sink insulator assemblies
- 10 kits per pack

Part No.	Type	Description	1	10	100
34121	TO-220	5-piece kit ..	$3.95	$3.55	$3.19
34139	TO-3	12-piece kit	4.95	4.49	3.95

See the yellow highlighted items.

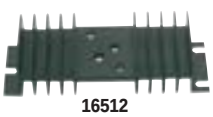
Special Jameco Values!

Details on page 5

Heat Sinks

Thermalloy IERC AAVID Wakefield

Our TO-3/TO-218/TO-220 heat sinks are made from black anodized aluminum (except for P/N 107297 – from light weight aluminum). They can be mounted horizontally or vertically depending on your applications. P/N 164734 and 163486 have mounting clips and some can be mounted vertically with solderable mounting tabs.



16512



189835



151546



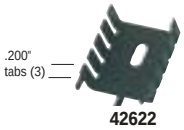
163820



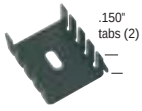
167265



163846



42622



70771



163811



40504



158051



70914



70658



129242



107297



164734

Part Number	Mfr. Cross Reference No.	Type	Watts	Size (L" x W" x H")	Pricing 1	10	100	1000
16512	DUDE4	TO-3	—	4.8 x 1.5 x 1.3	$2.95	$2.75	$2.49	$2.25
189835	635-5B2	TO-3	8.0	1.9 x 1.4 x 0.5	.95	.71	.49	.55
151546	635-125B2	TO-3	8.0	1.9 x 1.4 x 1.3	1.05	.95	.81	.75
163820	THM6061B2 (w/ mounting screws)	TO-3	5.0	2.1 x 2.3 x 0.4	.75	.68	.60	.53
167265	AVD592201 (w/ solder tab)	TO-218/247	8.0	2.0 x 2.0 x 0.5	.55	.50	.45	.40
163846	THM7021B	TO-218/220	5.0	1.7 x 1.8 x 0.4	.49	.44	.39	.35
42622	6030B	TO-220	3.9	1.2 x 1.0 x 0.5	.35	.30	.26	.24
70771	THM6038	TO-220	3.6	1.2 x 1.0 x 0.5	.45	.35	.25	.22
163811	THM7019 (w/ mounting screws)	TO-220	4.0	1.0 x 1.6 x 0.4	.69	.62	.55	.49
40504	291-36H	TO-220	2.0	0.9 x 1.0 x 0.4	.89	.79	.69	.59
158051	THM6078	TO-220	2.0	.75 x .52 x .38	.39	.35	.29	.25
70914	THM6106	TO-220	1.9	1.2 x 1.0 x 0.5	.36	.32	.27	.23
70658	THM6073	TO-220	1.6	0.8 x 0.7 x 0.4	.35	.29	.25	.19
129242	THM6106	TO-220	1.6	1.2 x 1.0 x 0.5	.49	.45	.39	.35
107297	PSC2-U (cup-style)	TO-220	—	0.8 x 1.0 x 0.4	.49	.45	.39	.35
164734	THM6072	TO-220	5.0	1.4 x 1.8 x 0.4	.49	.45	.39	.35

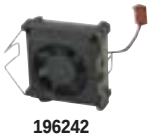
CPU Heat Sinks and Fans



151298



206244



196242



181278



195784



196074



207044

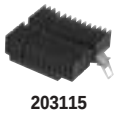


190545

- Excellent for avoiding CPU overheating during extended system on-time
- High efficiency cooling fans • Easy installation – just snap it in * P/N 174115: 14" lead wires

SALE

Part No.	Description	Size (H" x W" x D")	Agency Approvals	1	10	50	100
151298	Heat sink w/ fan for slot 1 (SECC 1)	4.90 x 2.15 x 1.34	UL/CE/TUV	$10.95	$9.89	$8.89	$6.95
206244	Heat sink w/ dual fan slot (SECC 2)	5.25 x 1.95 x 1.3	CE	12.95	11.65	10.49	9.49
196242	Heat sink w/ fan for socket 7 (ATX)	2.26 x 2.12 x 1.07	UL/CE/TUV	9.95	8.95	7.95	6.95
181278	Heat sink w/ fan for socket 7 (ATX)	2.12 x 2.05 x 1.67	UL/CE/CSA	9.95	8.95	7.95	6.95
195784	Heat sink w/ fan for socket 7 (AT/ATX)	2.12 x 2.13 x 1.52	—	9.95	8.95	7.95	7.95
196074	Heat sink w/ fan for socket 7 (AT)	2.40 x 2.0 x 1.32	UL/CE/TUV	9.95	8.95	9.95	8.95
207044	Heat sink w/ fan for socket 370 (ATX)	2.48 x 2.26 x 1.08	UL/CUL/CE/TUV	14.95	13.49	11.95	10.75
190545	Heat sink w/ fan for socket 370	2.45 x 2.42 x 2.10	—	17.95	15.95	14.49	12.95
203115	Heat sink for Pentium® Pro– adhesive back	2.18 x 1.95 x 0.76	UL/CSA/TUV/CE	4.49	3.95	3.55	3.19
203123	Heat sink for Pentium® Pro– adhesive back	2.34 x 2.10 x 1.77	UL/CSA/TUV/CE	4.95	4.49	3.95	3.49
185607	Heat sink w/ fan for Pentium® Pro	2.75 x 2.84 x 1.75	UL/CSA	14.95	13.49	11.95	10.75
118092	Heat sink w/ fan for 586 CPU w/ snap	2.18 x 2.30 x 1.00	UL/CE/TUV	4.95	3.69	2.59	3.49
129226	Heat sink for 486 CPU – adhesive back	1.70 x 1.63 x 0.36	—	2.95	2.36	1.77	1.25
129234	Heat sink for 486 CPU – adhesive back	1.70 x 1.64 x 0.66	—	3.95	3.55	3.19	2.79
191636	Heat sink w/ fan for 486 CPU w/ clip	1.85 x 1.92 x 0.72	UL/CE/TUV	5.49	4.95	4.19	4.19
174115	Heat sink w/ fan for 486 CPU w/ snap*	1.93 x 1.96 x 0.93	UL/CUL	3.95	3.55	2.95	2.65
67660	Heat sink w/ fan for 486 CPU w/ snap	1.93 x 1.96 x 0.93	UL/CSA/CE	5.95	5.35	4.79	4.29



203115



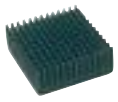
203123



185607



118092



129226/129234



191636



174115



67660

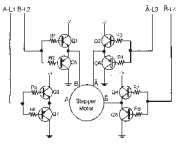
Part Number Color Code
New Sale Refurbished Closeout

12-Bit Analog/Digital DAC and Stepper Motor Control Board



- High speed serial port interface up to 230, 400 bits/sec.
- 4 channels with precision signal conditioning – 100mV, 2.5V and 5.0V input
- 24 digital I/O (TTL compatible), 11 analog channels with 12-bit resolution
- PWM, period measurement and stepper motor functions
- Free 32-bit DLL, OCX and Labview driver for rapid system development
- Size: 6.0"L x 2.6"W • Weight: 0.7 lbs.

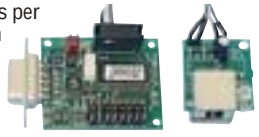
Driver Schematic



Requires: External driver circuit parts kit (P/N 208573, below) – 5 ea. 1kΩ & 330Ω 1/4W resistors, MJE 3055T transistor and 1N4003 diode

Part No.	Description	1	10
109911	Analog/digital DAC board	$139.95	$125.95
208573	Ext. driver ciruit parts kit	3.49	3.49

PONTECH Servo Controller Board



- Controls 1 to 8 servos per board, 8-bit precision
- Interface to PC through RS-232 port @ 2400-19,200bps
- 5 channel, 8-bit A/D input port for reading 0 to 5V
- IR-receiver & transmitter feature
- Source/sink: 25mA per pin • 8k EEPROM
- Size: 1.7"L x 1.4"W (main board); 1.1"L x 0.9"W (infrared board)

Includes: Manual, supplement & sample code software

Part No.	Description	1	10
153648	Servo controller board	$89.95	$80.95

Scott Edwards Electronics, Inc.

Mini SSC II Module (Serial Servo Controller)

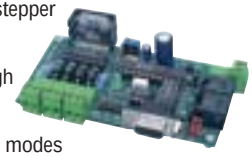


- Controls 8 pulse-proportional servos
- Receives serially at 2400 or 9600 baud
- Module is addressable, thus allowing two units to share the same line to control a total of 16 servos
- Connections to serial input can be established using a modular jack (P/N 115553, pg 131) or modular adapter from DE9 to RJ11 (P/N 114737, pg 131)
- Size (PCB): 1.9"L x 1.4"W • One-year warranty

Part No.	Description	1	10
151001	Serial servo controller module	$49.95	$42.95

PONTECH 32-Bit Stepper Motor Controller

One Axis



- Controls one bipolar stepper motor with 32-bit absolute position
- Interface to PC through RS232 or RS485 @ 2400-19,200 bps
- Full, half or wave step modes
- Multiple boards may share same serial line (RS485 only)
- 2 channel general purpose 8-bit A/D input port for reading 0 to 5V
- 4-bit digital input for home limits
- Addressable up to 255 boards
- Size: 4.4"L x 2.3"H • Weight: 0.7 lbs.

Includes: Manual and sample code software

Part No.	Description	1	10
153621	32-bit controller	$159.95	$149.95

rmv electronics Multi-Stepper Motor Control Board



Shown w/ motors – not included

- Simultaneous/independent control of up to 16 stepper motors through a single serial port
- High speed serial communication interface 9.6kbps-230.4kbps
- 11 analog channels, A/D converter, 10 or 12 bits resolution
- 24-bit position register, can be read while motor is moving
- Linear acceleration/deceleration capability, up to 8500 step/sec.
- Full step (monophasic and biphasic), half step and external driver modes
- Current mode driver, drives coils up to 2A/45V
- Automatic power down prevents motor overheating
- External driver control outputs: step, direction and power control
- 26 digital I/O and two SPI interfaces for control of external devices
- 32 bits DDL interface for Windows® 9X, NT & Linux
- Internal FIFO RAM (128 bytes) allows customized motion profiles
- Size: 7.7"L x 5.0"W x 1.0"H • Weight: 0.7 lbs.

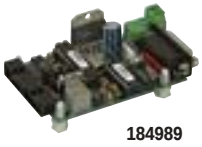
Part No.	Description	1	10
168727	Stepper motor contrl brd	$389.95	$369.95

Phone 1-800-831-4242
Online www.Jameco.com
Order Anytime 24x7x365
Fax 1-800-237-6948



KAE Industrial Motion Controllers for Brush, Brushless and Stepper Motors

All JR Kerr Automation Engineering controllers include integrated power amplifiers. Up to 32 controllers can be daisy-chained from a single full-duplex RS485 port. See below for RS232 to RS485 adapter.



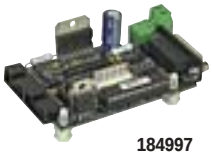
184989



185009



184971



184997



184962



184954

184989: PIC-SERVO motor control board
- For brush-type DC motors with 2 or 3 channel incremental encoders
- P.I.D. Servo control, trapezoidal position profiling, velocity mode, 32-bit resolution
- Integrated 12 to 48VDC supply power amplifier @ 3A continuous, 6A peak
- Limit switch inputs, general purpose analog input, PWM, DIR output for use with external amps

185009: PIC-SERVO 3PH motor control board for brush or brushless motors
- For 3-phase brushless motors with hall effect sensors or conventional DC brush-type motors
- High current amplifier: 7A continuous, 10A peak, 12 to 48VDC supply
- Same features as 184989 above but with support for linear & circular interpolation using the PIC-SERVO CMC chipset

184971: Z232-485 serial port adapter
- Lets you operate the controllers above from any standard RS232 port

Part No.	Description	Size (L" x W" x H")	1	10
184989	PIC-SERVO	3.1 x 2.1 x 0.9	$179.95	$161.95
185009	PIC-SERVO 3PH	3.1 x 3.1 x 1.0	239.95	215.95
184971	Z232-485	3.1 x 2.1 x 0.5	59.95	53.95

184997: PIC-STEP motor control board
- Integrated indexer and driver for 2 or 4 phase stepper motors
- Full/half step bipolar chopper drive, 2A per phase, 7.5 to 46VDC supply
- Trapezoidal position profiling, velocity mode, up to 50,000 steps per second
- Limit switch inputs, general purpose outputs, step/dir outputs for use with external drivers

184962: PIC-I/O multifunction I/O control board
- 12 I/O bits software configurable as inputs or outputs
- One counter input
- Three 8-bit analog inputs, two PWM outputs with high current drivers

184954: simple sequencer stand-alone controller
- Programmable master controller for building stand-alone systems with the controllers above
- Plugs into a socket on the Z232-485 board above

Part No.	Description	Size (L" x W" x H")	1	10
184997	PIC-STEP	3.1 x 2.1 x 0.9	$159.95	$143.95
184962	PIC-I/O	3.1 x 2.1 x 0.6	99.95	89.95
184954	Simple sequencer	2.1 x 1.0 x 0.4	59.95	53.95

Bipolar and Unipolar Stepper Motors

SALE


117954 (Fig. 1)

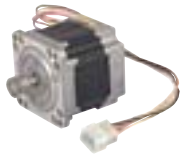

163395 (Fig. 2)


105881 (Fig. 3)


151861 (Fig. 4)


192794 (Fig. 5)


173180 (Fig. 6)


169201 (Fig. 7)

- Excellent for precision control
- Can be operated in forward/reverse mode
- See pages 44-48 for compatible power supplies

Part Number	Mfr. Cross Ref. No.	Fig.	Step Angle	No. of Phases	Drive System	Volt. (VDC)	Phase Resis. (Ohms)	Curr. (mA)	Phase Inductance (mH)	Detent Torque (g-cm)	Holding Torque (g-cm)	Mounting Hole Space Diagonal (in.)	Mounting Holes (in.)	Shaft Dia. (in.)	Shaft Length (in.)	Motor Dia. (in.)	Motor Height (in.)	Pricing 1	Pricing 10	Pricing 50
117954	LB82773-M1	1	7.5°	2	Bipolar	5	6	800	7	100	1080	2.60	1.95	0.250	0.75	2.25	1.00	$2.95	$2.39	$1.79
163395 [1]	5017-935	2	0.9°	2	Bipolar	8.4	30	280	25	36	791	1.73	0.15	0.155	0.29	1.64	1.20	3.95	3.49	3.19
163408 [1]	4017-806	2	1.8°	2	Bipolar	9.2	38	240	52	36	664	1.73	0.15	0.155	0.23	1.66	1.25	2.19	1.65	1.15
105881 [2/3]	SM4203	3	3.6°	2	Bipolar	12	25	480	31	80	600	1.73	0.11	0.197	0.43	1.66	1.31	4.95	4.49	3.95
164056	M82101-P1	1	7.5°	3	Unipolar	5	20	255	5	9	94	1.4	0.13	0.078	0.35	1.00	0.46	4.95	3.75	2.59
151861	C42M048A04	4	7.5°	4	Unipolar	5	9	550	10	90	750	1.94	0.13	0.117	0.40	1.65	0.83	4.49	3.36	2.36
171601 [4]	PF35T48L4	1	3.6°	4	Unipolar	7	20	350	9	40	680	1.68	0.14	0.078	0.47	1.38	0.58	3.49	2.79	2.09
192794 [5]	PM425048	5	7.5°	4	Unipolar	12	45	500	17.5	39	570	1.97	0.09	0.117	0.33	1.66	0.54	3.95	3.49	2.95
172241	PF4248E188	1	5.5°	4	Unipolar	12	50	240	33	40	750	1.97	0.13	0.117	0.40	1.66	0.85	2.05	1.85	1.65
166705	PM42S-096	1	3.8°	4	Unipolar	12	84	140	16	60	450	1.95	0.13	0.117	0.40	1.66	1.64	3.95	2.95	2.15
105890 [3]	SM4200	3	3.6°	4	Unipolar	12	75	150	39	80	600	1.73	0.11	0.197	0.43	1.66	1.28	6.95	6.25	5.59
173180 [6]	30BY102AH	6	.09°	4	Unipolar	12	200	60	49.5	400	400	1.42	0.14	0.194	0.36	1.18	.68	9.95	8.95	7.95
169201	STP57D317	7	1.8°	4	Unipolar	24	81	160	68	80	600	2.65	0.18	0.250	0.75	2.20	2.10	5.95	5.49	4.95

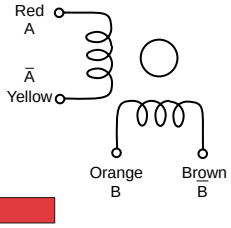
[1] **163395/163408:** Dual shaft
[2] **105881:** P/N 25216 (IC, MC3479P, pg 9) biphase stepper motor driver can be used to operate
[3] **105881/105890**: Use P/N 161998 for shaft coupler, see page 172
[4] **171601:** Dual shaft w/ 10 tooth
[5] **192794:** Single shaft w/ 12 tooth
[6] **173180:** Geared (7.5°/Step)

GBM Bipolar and Unipolar Stepper Motors

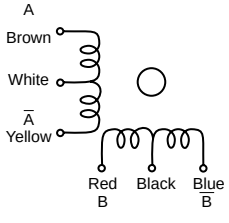
- Bearing type: ball
- Dielectric strength: 500V, 50Hz/minute
- 18" lead wires
- Step angle: 1.8°
- Ambient temperature: -10°C to +55°C
- Insulation resistance: 100MΩ @ 500VDC
- Use P/N 161998, pg 172, for shaft coupler

SALE

Bipolar (Fig. 1)



Unipolar (Fig. 2)




NEMA 17 (155459)


NEMA 22 (162026)

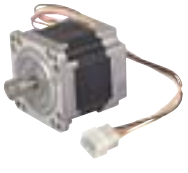
GBM is an ISO-9001 Certified Company

Part Number	Product Number	Fig.	NEMA Form	No. of Phases	Drive System	Voltage (VDC)	Phase Resistance (Ohms)	Current (mA)	Phase Inductance (mH)	Detent Torque (g-cm)	Holding Torque (g-cm)	Mounting Hole Space Diagonal (in.)	Mounting Holes (in.)	Shaft Diameter (in.)	Shaft Length (in.)	Motor Diameter (in.)	Motor Height (in.)	Weight (lbs.)	Pricing 1	Pricing 10	Pricing 50
172531	57BYG061	2	22	4	Unipolar	2.25	1.0	2250	2	340	340	2.65	0.2	0.250	1.2	2.3	2.0	1.4	$15.85	$14.35	$12.89
155432	42BYG228	2	17	4	Unipolar	12	30	400	23	220	2,000	1.73	0.1	0.197	0.9	1.7	1.5	0.5	16.95	14.95	13.49
155459*	42BYG023	1	17	2	Bipolar	12	30	400	36	220	2,100	1.73	0.1	0.197	0.6	1.7	1.3	0.5	16.95	14.95	13.49
172646	42BYG205	2	17	4	Unipolar	9.6	75	480	15	220	2,300	1.73	0.1	0.197	0.9	1.7	1.4	0.5	14.95	13.49	11.95
162026	57BYG084	2	22	4	Unipolar	12	20	600	22	725	6,000	2.65	0.2	0.250	1.0	2.2	2.0	1.3	24.95	22.49	19.95
206025	23PMC10804	2	22	4	Unipolar	12	8	1500	56	1300	20,000	2.65	0.2	0.184	0.9	2.2	3.0	1.9	29.95	26.95	24.25

* dual shaft

24VDC Unipolar Stepper Motor

1.8° / Step



- No. of phases: 4
- Detent torque: 80 g-cm
- Holding torque: 600 g-cm
- Phase resistance: 81Ω
- Phase inductance: 68mH
- Current: 160mA
- Mounting hole size: 0.18"
- Shaft size: 0.75"L x 0.250"Dia.
- Motor size: 2.20"Dia. x 2.10"H

Part No.	Mfr. Cross Ref. No.	1	10	50
169201	STP57D317	$5.95	$5.49	$4.95

30-Day Money-Back Guarantee

If you're not satisfied we'll take it back!
Details on page 181

NMB 12VDC Unipolar Stepper Motor

7.5° / Step



- No. of phases: 4
- Detent torque: 320 g-cm
- Holding torque: 6400 g-cm
- Phase resistance: 20Ω
- Current: 600mA
- Mounting hole size: 0.09"
- Shaft size: 0.340"L x 0.157"Dia.
- Motor size: 2.20"Dia. x 0.85"H
- Weight: 0.58 lbs.

Part No.	Product No.	1	10	50
174553	PM55L048NB07	$4.95	$4.49	$3.95

Part Number Color Code
New Sale Refurbished Closeout

3-150VDC Motors

MITSUMI
NMB
MABUCHI MOTOR
star motor
JOHNSON ELECTRIC


154915/154923


177498


181411 SALE


192807 SALE


153656


174991 SALE


181112 SALE


174692 SALE


162579 SALE

NEW

206949


181964 SALE


173681 SALE

Part Number	Mfr. Cross Reference No.	Manufacturer	Nominal Voltage	Voltage Range	Current (Amps)	RPM (max.)	Torque (g-cm)	Terminal Type	Shaft Dia.	Shaft Length	Size (D" x L")	Pricing 1	10	100
154915	ST-130-12240[1]	Star Motor	3VDC	1.5V-3V	0.070	5200	4.0	0.8"/solder	0.08"	0.33"	.178 x 1.08	$1.09	$.89	$.79
154923	ST-130-22770[1]	Star Motor	3VDC	1.5V-3V	0.240	16000	8.3	0.8"/solder	0.08"	0.31"	.178 x 1.14	.79	.69	.63
177498	RC280RA-2485	Mabuchi Motor	4.5VDC	3V-14V	0.150	10300	33.3	11"/solder	0.08"	0.43"	0.95 x 1.20	1.75	1.55	1.39
181411	HC685G-61810	Johnson Electric	5.0VDC	3V-14V	0.470	10000	18.8	.187"/solder	0.13"	0.54"	1.40 x 1.98	3.95	2.99	1.99
192807	RF500TB	Mabuchi Motor	6.0VDC	1.5-9V	0.028	3700	14.5	.08"/solder	0.08"	0.35"	1.25 x 0.76	1.75	1.30	.90
153656	RS550PF[2]	Mabuchi Motor	7.2VDC	4V-10V	1.400	6500	44.1	.15"/solder	0.13"	0.66"	1.45 x 2.25	2.95	2.49	2.25
174991	6424CL09WB20	NMB	10VDC	8V-12V	0.430	4100	—	8" wires	0.12"	0.64"	1.62 x 0.64	1.85	1.65	1.49
181112	M25N-2	Mitsumi	12VDC	5V-15V	0.018	3000	18	11"/solder	0.08"	0.26"	0.97 x 1.30	1.95	1.45	1.05
174692	21226-384221	Johnson Electric	12VDC	9V-14V	0.015	3000	—	.11"/solder	0.08"	0.69"	0.97 x 1.19	1.25	1.09	.99
162579	TID20E	Operating Tech T&I	12VDC	9V-14V	0.025	2150	—	.20"/solder	0.12"	0.48"	1.48 x 1.42	1.49	1.10	.79
206949	QJT360S14280	Nichibo	12VDC	9V-30V	0.350	4930	44.5	.11"/solder	0.09"	0.45"	1.09 x 1.30	1.95	1.75	1.59
181964	NF203G12	Johnson Electric	12VDC	9V-14V	0.030	5000	—	.07"/solder	0.08"	0.57"	0.95 x 1.20	1.49	1.35	1.19
173681	HC610F[3]	Johnson Electric	12VDC	9V-14V	0.950	6600	20.0	.187"/fast on	0.12"	0.92"	1.40 x 1.80	1.95	1.49	1.05
190035	HC685L	Johnson Electric	15VDC	7.2V-24V	0.720	7800	23.2	.187"/solder	0.13"	0.38"	1.47 x 2.25	1.75	1.29	.89
150666	HC675LG[4]	Johnson Electric	24VDC	9V-30V	0.083	4100	23.2	10.5" wires	0.12"	0.38"	1.47 x 2.25	2.49	2.25	1.99
161082	84055	Johnson Electric	150VDC	145-152	0.168	6500	.158	.187"/fast on	0.16	0.55	2.48 x 1.51	3.95	2.95	1.99


190035


150666

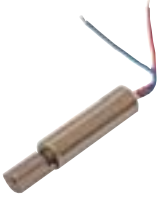

161082

[1] **154915/154923:** Use shaft coupler P/N 161998, pg 172
[2] Manufacturer may vary
[3] **173681:** Eccentric gear
[4] **150666:** Shaft pulley type with 16-tooth configuration

Vibrator and Geared Motors

1.3VDC 8,500 RPM Vibrating Motor

- Typical applications: cellular phones, pagers, and toys
- Rated RPM: 8,500 @ 1.3VDC
- Direction of rotation: clockwise
- Operating voltage: 1.3V @ 65mA (typical)
- Lead length: 0.75"
- Size: (motor) 0.16"Dia. x 0.55"L (shaft) 0.15"Dia. x 0.23"L



Part No.	Description	1	10	100
175396	Vibrating motor	$5.95	$5.35	$4.79

3VDC 4,500 RPM Vibrating Motor

- Typical applications: beepers, small toys, cellular phones
- Rated RPM: 4,500 or more @ 3VDC
- Direction of rotation: dual
- Operating voltage: 3VDC @ 45mA
- Operating voltage range: 2.5VDC – 3.8VDC (max.)
- Starting current @ operating voltage: 60mA or less
- Size: 0.55"Dia. x 0.13"Thick



Part No.	Description	1	10	100
185228	Vibrating motor	$3.35	$2.95	$2.49

TimeTech 120VAC Gear Motor

4.8 rpm – 3.5 Watt

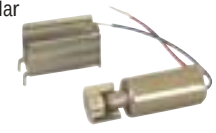
- No load current: 25mA
- Operating voltage: 120VAC @ 60Hz
- Terminals: 0.19"
- Screw down tabs for mounting
- Shaft Dia: 0.27"
- Shaft length: 0.32"
- Overall size: 2.0"Dia. x 0.8"Thick
- UL approved



Part No.	Product No.	Description	1	10	100
160987	S430	Gear motor	$3.95	$3.59	$3.19

Namiki 1.3VDC 7,500 RPM Vibrating Motor

- Typical applications: cellular phones, pagers and toys
- Rated RPM: 7,500 @ 1.3VDC
- Clock-wise rotation
- 1.1" lead wires
- Operating voltage: 1.3VDC @ 80mA
- Size: (motor) 0.47"L x 0.24"Dia. (shaft) 0.22"L x 0.10"Dia.



Part No.	Description	1	10	100
190078	Vibrating motor	$5.95	$5.35	$4.79

1.3VDC 7,000 RPM Vibrating Motor

- Typical applications: cellular phones, pagers, and toys
- Rated RPM: 7,000 @ 1.3VDC
- Lead length: 0.7"
- Stall current: 112mA @ 1.3VDC
- Direction of rotation: clockwise
- Operating voltage: 1.3VDC @ 62mA
- Operating voltage range: 0.7VDC – 1.6VDC (max.)
- Size: (motor) 0.28"Dia. x 0.67"L (shaft) 0.10"Dia. x 0.18"L



Part No.	Description	1	10	100
175062	Vibrating motor	$4.95	$4.49	$3.95

Electric Motors and Control Techniques

TAB Publishing

Explains how different types of motors operate, and how electronic control devices can be used to improve efficiency in a wide range of applications. (294 pages, 1994)

- Size: 7.3" x 9.2"
- Weight: 1.1 lbs.



Part No.	Description	1	10
137162	Electric Motors & Control	$24.95	$22.49

We'll match the advertised price of any like product. **Jameco's Low-Price Guarantee** It's that simple!

12 and 24VDC Reversible Gear Head Motors

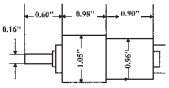
HSIANG NENG

- Solder-type terminal
- High torque construction
- Oil bearing design for long service life
- Insulation resistance: 10MΩ
- Dielectric strength: 300VDC

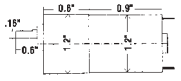

167038


159417

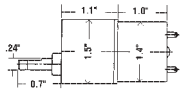

155011


HN27GD Series

GH30GM Series



GH35GM Series



HN27GD Series

Part Number	Product Number	Rated Voltage	Operating Range (VDC)	No Load Current (mA)	No Load Speed (rpm)	Started Torque (kg-cm)	Motor Size Gear Ratio	Gear Size Dia. x Lgth (in.)	Motor Size Dia. x Lgth (in.)	Shaft Size Dia. x Lgth (in.)	Pricing 1	Pricing 10	Pricing 50
167038	GH12-0953Y	12	4.5 – 24	45	14	1.2	188:1	1.0 x 0.9	1.1 x 1.0	.16 x .60	$14.95	$12.95	$10.95
167046	GH12-1828Y	12	4.5 – 24	95	37	1.3	90:1	1.1 x 1.3	1.1 x 0.8	.16 x .60	19.95	16.95	14.95

GH30GM Series

170641	GH12-1828Y-10	12	6.0 – 24	45	10	3.5	332:1	1.2 x 1.2	1.2 x 0.9	.16 x .70	$21.95	$16.46	$11.52
153437	GH12-1045Y	12	3.0 – 12	35	15	0.8	200:1	0.9 x 1.0	1.1 x 0.6	.16 x .70	16.95	15.25	13.75
159417	GH12-1921Y	12	4.5 – 12	150	42	8	132:1	1.2 x 1.2	1.2 x 0.9	.16 x .70	17.95	14.49	12.95
162190	GH12-1324Y225	12	4.5 – 12	65	225	0.7	30:1	1.0 x 0.9	1.1 x 0.6	.16 x .70	14.95	12.49	10.95

GH35GM Series

155011	GH12-1926	12	4.5 – 12	55	2	15	3000:1	1.3 x 0.9	1.5 x 1.1	.23 x .90	$19.95	$17.95	$15.95
155820	GH12-1830Y-P	12	4.5 – 12	50	4.5	13	1000:1	1.3 x 0.9	1.5 x 1.0	.23 x .90	19.95	17.95	15.95
155838	GH12-1641T-L	12	3.0 – 12	65	20	10	270:1	1.3 x 0.9	1.5 x 0.8	.23 x .90	19.95	17.95	15.95
152910	GH12-1926Y	12	4.5 – 12	48	44	11.8	100:1	1.3 x 1.0	1.5 x 0.7	.24 x .90	21.95	19.75	17.75
151440	GH12-1632TI	12	4.5 – 12	75	69	11	100:1	1.3 x 0.9	1.5 x 0.7	.23 x .90	21.95	18.55	16.69
155854	GH12-1641T-F	12	3.0 – 12	65	87	7	60:1	1.3 x 0.9	1.4 x 0.9	.23 x .90	19.95	16.49	14.49
155862	GH12-1926Y-F	12	4.5 – 12	60	100	5	60:1	1.3 x 0.9	1.4 x 0.9	.23 x .90	19.95	17.95	15.95
161373	GH12-1345T	12	4.5 – 12	69	150	3	30:1	1.3 x 0.9	1.5 x 0.7	.23 x .90	19.95	16.49	14.49
161381	GH12-1634T	12	4.5 – 12	111	200	3.6	30:1	1.3 x 0.9	1.4 x 0.7	.23 x .90	19.95	17.95	15.95
164785	GH12-1640Y	12	4.5 – 24	45	300	0.8	10:1	1.3 x 0.9	1.4 x 0.7	.23 x .90	19.95	17.95	14.95
176049	GH12-1640Y00	24	12 – 24	140	2	6	3000:1	1.3 x 0.9	1.5 x 1.1	.23 x .90	18.95	16.95	15.49
176031	GH24-1640Y06	24	12 – 24	140	65	2	90:1	1.3 x 0.9	1.4 x 0.7	.23 x .90	19.95	17.95	15.95
176022	GH24-1640Y19	24	12 – 24	140	193	1.0	30:1	1.3 x 0.9	1.4 x 0.7	.23 x .90	19.95	16.95	14.95

Solenoids

12VDC Continuous Tubular Push, Pull and Push/Pull Solenoids

- 12VDC nominal voltage continuous
- Life expectancy: 2,000,000 cycles
- * Manufactured by **Guardian** (A420-067074-1)


163803


149761


145314


142463

Part No.	Type	Coil Res. (±10%)	Power Consum.	Holding Force (lbs. @ 20°C)	Wires (in.)	Size (ins.) (L x Dia.)	Shaft Dia. (in.)	Wt. (lbs.)	Pricing 1	Pricing 10	Pricing 100
163803*	Push	42.8Ω	3.4W	0.75	9.0	2.00 x .60	0.156	0.10	$9.95	$8.95	$7.95
149753	Push	36Ω	4.0W	0.75	7.0	1.90 x .50	0.063	0.05	9.95	8.95	7.95
149761	Push	20.7Ω	7.0W	1.50	7.0	2.50 x .60	0.098	0.10	9.95	8.95	7.95
145314	Push/Pull	89Ω	2.0W	1.12	3.5	1.24 x .73	0.110	0.05	8.95	7.95	6.95
142463	Pull	36Ω	4.0W	0.63	2.0	1.63 x .43	0.150	0.04	5.95	5.35	4.79

See page 172 for Robotic Parts and Accessories!



Shindengen 24VDC Continuous Tubular Pull Solenoid

- Holding force: 3 lbs.
- Typical coil resistance: 131Ω
- Power: 8 watts
- 2" lead wires
- Size: 3.1"L x 1.0"Dia.
- Weight: 2.8 lbs.

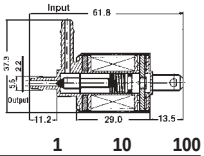


Part No.	Description	1	10	100
128557	24VDC solenoid	$6.95	$6.25	$5.59

12VDC Solenoid Valve

- Operating voltage: 12VDC
- Operational temp: -29˚C to 85˚C
- Current: 350mA
- Air leakage: 1c.c./min. max. 4psi
- 0.250" quick disconnect terminals
- Size: 1.2"L x 0.92"Dia





Part No.	Description	1	10	100
169834	Solenoid valve	$6.95	$6.25	$5.59

30-Day Money-Back Guarantee

If you're not completely satisfied, we'll take it back! Details on page 181

Part Number Color Code: New Sale Refurbished Closeout

SKYNET 10-Watt



- **Output voltage: +5VDC @ 2A**
- Input voltage: 115/230VAC @ 50/60Hz
- Input connector: 5-position 3-pin 0.156" male locking headers
- Mating input conn.: P/N 104723, pg 81
- Output connector: 2-position 0.156" male locking headers
- Mating output connector: P/N 176743, pg 81



Part No.	Product No.	1	10	50	100
184866	SNP-0502-B	$7.95	$6.39	$4.79	$3.95

CONDOR 20-Watt



- **Output voltage: +24VDC @ 0.85A**
- Input voltage: 100-240VAC @ 50/60Hz
- Input conn.: 4-position 0.156" male headers
- Mating input connector: P/N 104715 (4-pos. 0.156" female housing, pg 81)
- Output connector: 4-position 0.156" male header
- Mating output connector: P/N 104715, pg 81



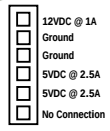
Part No.	Product No.	1	10	50	100
196664	GSC2024	$7.95	$6.95	$6.25	$5.59

SUPER MAC 24.5-Watt

SALE



- **Output voltage: +5V @ 2.5A +12V @ 1A**
- Input voltage: 100-240VAC @ 50/60Hz
- 2A @ 250V fuse on board
- Mating input conn.: P/N 104432 (3-position housing connector, pg 81)
- Mating output connector: P/N 104731 (6-position housing connector, pg 81)



Part No.	Product No.	1	10	50	100
166967	U002512010	$10.95	$8.79	$6.59	$4.95

SALE

10 to 57-Watt Switching Power Supplies

NEW

Part Number	Mfr.	Product Number	Watts (W)	Output (VDC/A)	Input (VAC @ Hz)	Input Connector (Mating Connector)	Output Connector (Mating Connector)	Certification	Size L" x W" x H"	Wt. (lbs.)	Pricing 1	10	50	100
184866	Skynet	SNP-0502-B*	10	+5/2	115/230 @ 50-60	.156" M header (P/N 104723, pg 81)	.156" M header (P/N 176743, pg 81)	UL/CUL/TUV	4.4 x 1.6 x 0.8	0.2	$7.95	$6.39	$4.79	$3.95
189747	Tamura	79642191	17	+5/1, +12/1	120-230 @ 50-60	.156" M header (P/N 104432, pg 81)	.1" M shrouded header (4-pin)	—	4.7 x 2.4 x 1.1	0.4	7.95	6.39	4.79	3.39
146991	TDK	A530	19.4	+5/1, +12/1.2	100-115 @ 50-60	.156" M header (P/N 104432, pg 81)	.1" M locking header (4-pin)	UL	4.8 x 3.0 x 1.3	0.4	3.95	3.55	3.19	2.89
203422	CINCO	CFM2001S	20	+5/4.4	100-240 @ 47-63	.156" M header (P/N 104432, pg 81)	.156" M header (P/N 104715, pg 81)	UL/CUL/TUV/CE	3.5 x 2.0 x 0.7	1.3	8.95	7.95	6.95	6.95
196664	Condor	GSC2024*	20	+24/0.85	100-240 @ 50-60	2.5 mm M – 4-pin Molex SPOX type	2.5 mm M – 4-pin Molex SPOX type	UL/CSA/TUV	3.5 x 2.0 x 0.8	0.3	7.95	6.95	6.25	5.59
173374	Autec	UPS20-2002	23	+5/1, +12/1.5	115/230 @ 50-60	.156" M header (P/N 104723, pg 81)	.156" M header (P/N 104715, pg 81)	UL/CSA/TUV	5.0 x 3.0 x 1.1	0.5	8.95	7.19	5.39	3.95
166967	Super Mac	U002512010*	24.5	+5/2.5, +12/1	100-240 @ 50-60	.156" M header (P/N 104432, pg 81)	.156" M header (P/N 104731, pg 81)	UL/CSA/TUV	3.7 x 2.5 x 1.2	0.4	10.95	8.79	6.59	4.95
203369	UMEC	UP-03035-1	25	+5/3, +12/1.5, -12/0.3	100-240 @ 47-63	.156" M header (P/N 104432, pg 81)	.156" M header (P/N 104731, pg 81)	UL/CSA/TUV	3.6 x 2.5 x 1.1	0.5	9.95	8.95	8.95	8.95
189536	Phihong	PSA4005	30	+5/6	90-264 @ 47-63	.156" M header (P/N 104432, pg 81)	.156" M header (P/N 104731, pg 81)	UL/CSA/VDE/CE	5.0 x 3.0 x 1.1	0.6	8.95	7.95	6.95	6.25
189712	Astec	RBS42	30	+5/6	100-240 @ 50-60	.156" M header (P/N 104432, pg 81)	.156" M header (P/N 104731, pg 81)	UL/CSA/VDE	5.0 x 3.0 x 1.2	0.6	3.95	3.55	3.19	3.19
203406	DVE	DSP-453A-10	30	+5/4, +12/1.2, -12/0.4	100-250 @ 47-63	.156" M header (P/N 104432, pg 81)	.156" M header (P/N 104731, pg 81)	UL/CSA/TUV	5.0 x 3.0 x 1.1	0.6	12.95	11.49	11.49	11.49
168225	Converter Concepts	STRC0006	30	+5/2.7, +12/1.2, +35/0.035, -5/0.18	85-135 @ 57-63	.156" M header (P/N 104432, pg 81)	.156" M header (P/N 104731, pg 81)	UL	9.6 x 2.0 x 1.6	0.6	1.95	1.59	1.29	.99
190203	Delta	LDPS378P	35	+5/2.7, +3.3/5, +12/0.5	100-240 @ 50-60	3 prong receptacle (P/N 38050, pg 56)	.156" M header (12-pin)	UL/CSA/VDE	5.9 x 4.2 x 1.2	0.8	4.95	4.49	4.49	4.49
173551	Autec	UPS40-1002	40	+5/3, +12/2	115/230 @ 50-60	.156" M header (P/N 104723, pg 81)	.156" M header (P/N 104715, pg 81)	UL/CSA/TUV	7.0 x 2.0 x 1.2	0.5	6.95	6.25	5.59	4.95
172697	Skynet	IXM9543	40	+5/7, +12/0.3	100-240 @ 50-60	3 prong receptacle (P/N 38050, pg 56)	.156" F housing (P/N 104838, pg 81)	UL/CSA/TUV	6.5 x 3.0 x 1.3	0.6	2.99	2.69	2.39	2.19
190211	Computer Products	NFN40-7630E	40	+5/3, +12/2, -12/0.35	100-240 @ 50-60	3 prong receptacle (P/N 38050, pg 56)	Molex F cable (6-pin)	UL/CSA	6.1 x 3.2 x 1.5	1.2	9.95	8.95	7.95	6.95
190238	Phihong	PSA-4033	40	+5/3, +12/2, -5/0.5	100-240 @ 50-60	.156" M header (P/N 104432, pg 81)	.156" M header (P/N 104731, pg 81)	UL/CUL/TUV	5.0 x 3.0 x 1.1	0.6	9.95	8.95	7.95	7.95
190271	Astec	SA40-1313	40	+5/5, +12/3, -12/0.35	100-240 @ 50-60	.156" M header (P/N 104432, pg 81)	Molex F cable (6-pin)	UL/CSA/VDE	5.0 x 3.0 x 1.3	0.5	12.95	11.49	10.49	10.49
190086	Artesyn	NFS407608	40	+5.1/3, +12/2, -12/0.35	100-240 @ 50-60	.156" M header (P/N 104432, pg 81)	.156" M header (P/N 104731, pg 81)	UL/CSA/VDE/CE	5.0 X 3.0 X 1.2	0.5	14.95	13.49	11.95	10.95
28927	Astec	BM41012	41	+5/3.75, +12/1.5 -12/0.4	115 @ 50-60	Disconnect solderless terminals	.156" M header (P/N 104432, 104715, pg 81)	UL/CSA/VDE	6.4 x 3.2 x 1.7	1.0	7.95	7.19	6.49	5.95
163985	Samsung	PSPL430201A	43	+5/5, +12/1.5	100-120 @ 50-60	3 prong receptacle (P/N 38050, pg 56)	(P/N 42067, P/N 114930, P/N 78326, pg 125)	UL/CUL	6.1 x 2.1 x 1.0	0.6	12.95	11.49	9.95	8.95
203414	DVE	DSP-453A-6	45	+5/9	100-250 @ 47-63	.156" M header (P/N 104432, pg 81)	.156" M header (P/N 104731, pg 81)	UL/CSA/TUV	5.0 x 3.0 x 1.1	0.6	9.95	8.95	8.95	8.95
190297	Delta	SMP-43EP-10A	46	+5/8, +12/0.5	100-240 @ 50-60	.156" M header (P/N 104432, pg 81)	Molex F cable (6-pin)	UL/CSA	5.0 x 3.0 x 1.3	0.6	5.49	4.95	4.45	3.99
190300	Phihong	PSA50201	46	+5/8, +12/0.5	100-240 @ 50-60	.156" M header (P/N 104432, pg 81)	Molex F cable (6-pin)	UL/CUL/TUV	5.0 X 3.0 X 1.2	0.6	11.95	9.55	7.19	4.99
174641	Cherokee	CCH74C3	47	+3.3/9, +5/2.5, +5/1	100-240 @ 47-63	.156" M header (P/N 104432, pg 81)	.156" M header (7-pin .156" housing)	UL/CSA	5.0 x 3.0 x 1.3	0.7	3.95	3.59	3.19	2.89
184874	Skynet	BOCN061	48	+5/4, +3.3/1, +12/2	100-250 @ 47-63	3 prong receptacle (P/N 38050, pg 56)	.156" F housing conn. (P/N 104811, pg 81)	UL/CUL/TUV/CE	6.2 x 2.7 x 1.5	0.7	4.95	4.49	3.95	3.59
169050	Autec	UPS50-2002	51	+5/3, +12/3	115/230 @ 50-60	.156" M header (P/N 104723, pg 81)	.156" M header (P/N 104715, pg 81)	UL/CSA/TUV	5.0 x 3.0 x 1.9	0.7	9.95	7.95	5.95	4.95
206463	Skynet	SNP-9F43-2	57	+5/3, +12/3.5	115/230 @ 50-60	.156" M header (P/N 104432, pg 81)	.156" M header (P/N 104715, pg 81)	UL/CSA/TUV	5.0 x 3.0 x 1.3	0.5	12.95	11.49	10.49	9.49

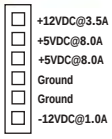
* See photo above

See additional Open-Frame Power Supplies on pages 45-48

ASTEC 60-Watt



- **Output voltage:**
  +5VDC @ 8A
  +12VDC @ 3.5A
  -12VDC @ 1A
- Input voltage:
  100-240VAC @ 50/60Hz
- Input connector:
  0.156" male header
- Mating input connector:
  P/N 104432, pg 81
- Output connector: 0.156" male header
- Mating input connector: P/N 104731, pg 81

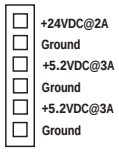


Part No.	Product No.	1	10	50	100
180970	LPT62 ...	$19.95	$17.95	$15.95	$13.95

ENCAD 65-Watt



- **Output voltage:**
  +5.2VDC @ 3A
  +24VDC @ 2A
- Input voltage:
  90-250VAC @ 50-60Hz
- Input connector:
  0.156" male header
- Mating input connector:
  P/N 104432, pg 81
- Output connector:
  0.156" male header
- Mating input connector: P/N 104731, pg 81

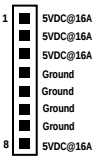


Part No.	Product No.	1	10	50	100
196824	LPT62 ...	$12.95	$11.49	$10.49	$9.49

ASTEC 80-Watt



- **Output voltage:**
  +5VDC @ 16A
- Input voltage:
  100-250VAC @ 50/60Hz
- Input connector:
  0.156" male header
- Mating input connector:
  P/N 104723, pg 81
- Output connector:
  0.156" male header
- Mating input connector:
  P/N 104766, pg 81



Part No.	Product No.	1	10	50	100
190676	LPS112	$11.95	$9.59	$7.19	$5.39

59 to 110-Watt Switching Power Supplies

SALE

NEW

Part Number	Mfr.	Product Number	Watts (W)	Output (VDC/A)	Input (VAC @ Hz)	Input Connector (Mating Connector)	Output Connector (Mating Connector)	Certification	Size L" x W" x H"	Wt. (lbs.)	Pricing 1	10	50	100
196453	Voltex	82-789	59	+5/6, +12/1.2 -12/1.2	100-240 @ 47-63	.156" M header (P/N 104723, pg 81)	.156" M header (cable included)	—	5.0 x 3.8 x 1.5	0.8	$14.95	$13.49	$11.95	$11.95
188066	EOS	VLT60-3000	60	+5/8, +12/3, -12/0.5	100-240 @ 50-60	.156" M header (P/N 104432, pg 81)	.156" M header (P/N 104731, pg 81)	UL/VDE/CE	4.0 x 2.0 x 0.6	0.3	29.95	24.95	24.95	24.95
180970	Astec	LPT62*	60	+5/8, +12/3.5, -12/1	100-240 @ 50-60	.156" M header (P/N 104432, pg 81)	.156" M header (P/N 104731, pg 81)	UL/CSA/TUV/ VDE/CE	5.0 x 3.0 x 1.6	0.8	19.95	17.95	15.95	13.95
171731	Delta	DPS-60MPB	60	+3.3/8, +5/9, +12/1, -12/0.2	90-270 @ 47-63	3 prong receptacle (P/N 38050, pg 56)	.156" M header (12-pin housing incl.)	UL/CUL/TUV	5.8 x 3.3 x 1.4	1.0	6.95	6.25	5.45	4.95
189966	Autec	UPS61-1004-T	60	+3.3/4, +5/2 +12/3, +32/0.5	115/230 @ 50-60	2 prong receptacle (P/N 189587, pg 56)	Molex F cable (10-pin)	CSA/CE	5.0 x 3.5 x 1.8	0.8	9.95	8.95	7.95	6.95
171281	Astec	LPT65	60	+5/8, +12/1, +24/2	100-250 @ 50-60	.156" M header (P/N 104432, pg 81)	.156" M header (P/N 104731, pg 81)	UL/CSA/VDE	5.0 x 3.0 x 1.6	0.8	19.95	17.95	15.95	14.49
203334	TRI-MAG	UV465-5	65	+5/13	115/230 @ 50-60	.156" M header (P/N 104432, pg 81)	.156" M header (P/N 104715, pg 81)	UL/CSA/TUV	5.0 x 3.0 x 1.4	0.6	9.95	8.95	8.95	8.95
169068	Autec	UPS65-1051	65	+5/13	115/230 @ 50-60	.156" M header (P/N 104723, pg 81)	.156" M header (P/N 104723, 104432, pg 81)	UL/CSA/VDE	6.0 x 3.5 x 1.5	0.8	9.95	8.95	7.95	6.95
203385	Fortron	SU65P12	65	+12/5.5	100-240 @ 47-63	.156" M header (P/N 104432, pg 81)	.156" M header (P/N 104715, pg 81)	UL/CSA/TUV	6.0 x 3.5 x 1.7	1.2	9.95	8.95	8.95	8.95
203377	Power Sensors	SU65P14	65	+24/3	100-240 @ 47-63	.156" M header (P/N 104432, pg 81)	.156" M header (P/N 104715, pg 81)	UL/CSA/TUV	6.0 x 3.5 x 1.7	1.2	9.95	8.95	8.95	8.95
196234	Lambda	PW-G-0050	65	+3.3/10, +5/7	100-240 @ 50-60	.156" M header (P/N 104432, pg 81)	.156" M header (7-pin)	UL/CSA/TUV/CE	6.0 x 3.5 x 1.3	0.9	4.95	4.49	3.95	3.59
171740	Total Power	TPG65-32B	65	+5/6, +30/1.16	90-264 @ 47-63	.156" M header (P/N 104432, pg 81)	.156" M header (P/N 104731, pg 81)	UL/CSA/TUV	5.0 x 3.0 x 1.3	0.6	7.95	6.95	6.25	5.59
196824	ENCAD	V006612010*	65	+5.2/3, +24/2	90-250 @ 50-60	.156" M header (P/N 104432, pg 81)	.156" M header (P/N 104731, pg 81)	UL/CUL/TUV	6.3 x 3.9 x 1.5	0.6	12.95	11.49	10.49	9.49
203393	TRI-MAG	UV465-1	65	+5/3.5, +12/4, -12/0.3	115/230 @ 50-60	.156" M header (P/N 104432, pg 81)	.156" M header (P/N 104715, pg 81)	UL/CSA/TUV	5.0 x 3.0 x 1.5	0.8	12.95	11.49	11.49	11.49
182916	Artesyn	NLP70-9693	70	+3.3/10.5, +5/10.5, +12/0.65	100-240 @ 50-60	.156" M header (P/N 104432, pg 81)	.156" M header (P/N 104432, 104715, pg 81)	UL/CSA/VDE/CE	5.5 x 3.0 x 1.3	0.8	3.95	3.55	3.25	2.95
203529	ETA	WRC485X-U	75	+48/1.6	115-230 @ 50-60	3 of 7 position screw terminals	4 of 7 position screw terminals	UL/CUL/VDE/CE	6.9 x 3.7 x 1.5	1.1	24.95	22.49	22.49	22.49
190676	Astec	LPS112*	80	+5/16	100-250 @ 50-60	.156" M header (P/N 104723, pg 81)	.156" M header (P/N 104766, pg 81)	UL/CSA/VDE/CE	7.0 x 4.0 x 1.7	1.2	11.95	9.59	7.19	5.39
190342	Computer Products	NFS85-7632	80	+5/8, +12/2, -12/1.5	100-240 @ 50-60	.156" M header (P/N 104723, pg 81)	Molex F cable (13-pin)	UL/CSA	7.0 x 4.2 x 1.3	1.3	12.95	11.49	9.95	9.95
196251	Lambda	PW-G-00790	85	+3.3/15, +5/7	100-240 @ 50-60	4" wires with disconnect terminal	.156" F housing (12-position)	UL/CSA/TUV/CE	8.0 x 3.5 x 1.3	1.2	9.95	7.95	5.95	4.49
190377	Lambda	SCQ12003054	96	+3.3/7, +5/5, +48/1, -48/1	100-240 @ 50-60	.156" M header (P/N 104723, pg 81)	.156" M header (12-pin)	UL/CSA	7.0 x 4.0 x 1.1	1.1	6.95	6.25	5.59	4.95
203537	Cosel	P100E-15	100	+15/7	100-240 @ 50-60	5 of 14 position screw terminals	6 of 14 position screw terminals	UL/CSA/TUV	7.5 x 3.7 x 2.0	1.7	24.95	22.49	22.49	22.49
203326	EOS	VLT100-1004	100	+48/2.1	100-240 @ 50-60	.156" M header (P/N 104432, pg 81)	.156" M header (2 P/N 104731, pg 81)	UL/CUL/VDE/CE	5.0 x 3.0 x 1.0	0.5	27.95	24.95	22.49	19.95
185711	EOS	VLT100-4002	100	+5/12, +16/3.0, -5/0.8, -15/0.8	90-264 @ 47-63	.156" M header (P/N 104432, pg 81)	.156" M header (2 P/N 104731, pg 81)	UL/CUL/VDE/CE	5.0 x 3.0 x 0.9	0.6	29.95	29.95	29.95	29.95
181198	Artesyn	NFS110-7601P	103	+5.1/8, +12/4.5, -5/0.5, -12/0.5	100-240 @ 50-60	.156" M header (P/N 104723, pg 81)	.156" M header (P/N 104432, 104766, pg 81)	UL/CSA/VDE/CE	7.0 x 4.2 x 1.8	1.3	19.95	17.95	15.95	15.95
189552	Phihong	PSA110402	110	+5/9, +12/0.75, +12/3.5, -12/0.75	90-264 @ 47-63	.156" M header (P/N 104723, pg 81)	.156" M header (2 P/N 104731, pg 81)	UL/CSA/TUV	6.8 x 3.6 x 1.7	1.4	17.95	15.95	13.95	13.95
189528	Phihong	PSA110403	110	+5/9, +12/0.75, +24/1.75, -12/0.75	115/230 @ 50-60	.156" M header (P/N 104723, pg 81)	.156" M header (2 P/N 104731, pg 81)	UL/CSA/TUV	6.8 x 3.6 x 1.7	1.4	14.95	13.49	13.49	13.49

* See photo above

See additional Open-Frame Power Supplies on pages 44, and 46-48

Part Number Color Code: New Sale Refurbished Closeout

ASTEC 120-Watt



- Output voltage:
  +3.3VDC @ 25A
  +5VDC @ 24A
  +12VDC @ 2A
  -12VDC @ 1A
- Input voltage: 115/230VAC @ 50-60Hz

SALE

Part No.	Product No.	1	10	50
196701	NTQ123	$24.95	$19.95	$14.95

CHEROKEE 150-Watt





SALE

189405

188971

- Output voltage:
  +3.3VDC @ 8A,
  +5VDC @ 26A
  +12VDC @ 6A,
  -12VDC @ 1A

Part No.	Product No.	1	10	50	100
188971	MQT154A1	$19.95	$17.95	$15.95	$13.95
189405	8" power cord	2.95	2.75	2.49	2.25

CHEROKEE 230-Watt



- Output voltage:
  +5VDC @ 40A
  +12VDC @ 2.5A
- Input voltage:
  115/230VAC
  @ 50-60Hz

Part No.	Product No.	1	10	50	100
196795	QP2A2-1A-A	$24.95	$22.49	$19.95	$17.95

120 to 350-Watt Switching Power Supplies

NEW

Part Number	Mfr.	Product Number	Watts (W)	Output (VDC/A)	Input (VAC @ Hz)	Input Connector (Mating Connector)	Output Connector (Mating Connector)	Certification	Size L" x W" x H"	Wt. (lbs.)	Pricing 1	10	50	100
190422	Astec	AA20140	120	+5/20, +12/2	100-240 @ 50-60	.156" M header (P/N 104432, pg 81)	AT housing (24-pin)	UL/CSA/VDE	7.0 x 4.2 x 1.5	1.1	$14.95	$13.49	$11.95	$10.95
196701	Astec	NTQ123*	120	+3.3/25, +5/24, +12/2, -12/1	85-264 @ 47-63	.156" M header (P/N 104723, pg 81)	.1/.156" M header (P/N 157420,104432, 81) screw terminals (P/N 103595, pg 85)	UL/CSA/VDE/CE	7.0 x 4.0 x 1.5	1.6	24.95	19.95	14.95	10.95
185560	EOS	VLT130-1100	130	+5/26,	100-240 @ 50-60	.156" M header (P/N 104432, pg 81)	.197" term. block 6-pin or .09" M header 8-pin	UL/VDE/CE	5.1 x 3.1 x 0.8	0.6	19.95	17.95	15.95	13.95
203351	Shindengen	FYG131/52G	130	+5/20, +12/5, -5/0.5 -12/0.5,	120-240 @ 50-60	3-position screw terminals	8-position screw terminals	UL/CSA/TUV	8.5 x 4.5 x 2.1	2.0	19.95	17.95	17.95	17.95
205663	SSI	SQV140-1333	140	+5/20, +15/5, +15/3, +15/3	120/240 @ 50-60	3-position screw terminals	12-position screw terminals	UL/CSA/TUV	10.5 x 5.0 x 2.5	4.6	34.95	31.49	31.49	31.49
188971	Cherokee	MQT154A1*	150	+3.3/8, +5/26, +12/6, -12/1	100-240 @ 47-63	.156" M header (P/N 104723, pg 81)	.1" / .156" headers (P/N 189405, below) (P/N 104723,104766, pg 81)	UL/CSA	8.0 x 4.3 x 1.5	2.0	19.95	17.95	15.95	13.95
203431	Cherokee	QT24A1V	150	+5/15, +12/5, -5/1, -12/1	115-240 @ 50-60	.156" M header (P/N 104723, pg 81)	.156" M header (15-pin)	UL/CSA/TUV	6.8 x 3.9 x 1.5	1.4	29.95	26.95	23.95	23.95
205671	SSI	SQV150-1433-5A	150	+5/15, +15/3, +15/3, +24/5	120/240 @ 50-60	3-position screw terminals	12-position screw terminals	UL/CSA/TUV	9.5 x 5.0 x 2.5	4.3	39.95	35.95	35.95	35.95
206914	SSI	SQM150-1422-A	150	+5/20, +12/3, +12/3, +24/5	120/240 @ 50-60	3-position screw terminals	12-position screw terminals	UL/CSA/TUV	9.5 x 5.0 x 2.5	4.0	39.95	35.95	35.95	35.95
206906	SSI	SQM200-1221	200	+5/5, +15/30, +12/5, +12/7	120/240 @ 50-60	3-position screw terminals	12-position screw terminals	UL/CSA/TUV	10.5 x 5.0 x 2.5	5.5	39.95	35.95	35.95	35.95
196795	Cherokee	QP2A2-1A-A*	230	+5/40, +12/2.5	115/230 @ 50-60	.156" M header (P/N 104723, pg 81)	8-position screw terminals	TUV	10.0 x 4.3 x 2.5	3.4	24.95	22.49	19.95	17.95
203342	Astec	LPQ252	250	+5/35, +12/10, -12/6, ±5–±25/6	100/250 @ 50-60	3-position screwr terminals	6-position screw terminals	UL/CSA/VDE/CE	9.0 x 5.0 x 2.0	2.0	49.95	44.95	39.95	39.95
205647	SSI	STM350-1022	350	+5/50, +12/5, +12/8	120/240 @ 50-60	3-position screw terminals	12-position screw terminals	UL/TUV	13.5 x 5.0 x 2.5	5.5	49.95	44.95	44.95	44.95
196461	TODD	MAX3541205AC	350	+5/50, +12/12 -5/2, -12/4	115/230 @ 50-60	3-position screw terminals	5-position screw terminals	TUV	9.0 x 5.0 x 2.5	2.0	39.95	31.95	24.95	18.95

* See photo above

See additional Open-Frame Power Supplies on pages 44, 45, 47 & 48

Switching Power Supplies

NEW

- Universal AC input
- Output over-power protection: 110% minimum, outputs 1 to 4, outputs cycle on/off, auto recovery
- MTBF: 150,000 hours minimum



204513



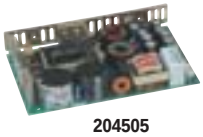
204548



204476



204468



204505

Part Number	Product Number	Watts (W)	Output (VDC/A)	Input (VAC @ Hz)	Efficiency (%)	Input Connector (Mating Connector)	Output Connector (Mating Connector)	Certification	Size L" x W" x H"	Wt. (lbs.)	Pricing 1	10	25
204513	SRW-45-2003	45	+5/5, +24/1.5	85-264 @ 47-63	68-72%	.156" M header (P/N 104432, pg 81)	.156" M header (2 P/N 104715, pg 81)	UL/CSA/TUV/CE	5.0 x.3.0 x 1.2	0.5	$69.95	$62.95	$55.95
204521	SRW-45-3002	45	+5/5, +15/2, -15/0.7	85-264 @ 47-63	68-72%	.156" M header (P/N 104432, pg 81)	.156" M header (2 P/N 104715, pg 81)	UL/CSA/TUV	5.0 x.3.0 x 1.2	0.5	69.95	62.95	55.95
204548	SRW-45-3102	45	+5/2.5, +14.5/2, -5.2/3	85-264 @ 47-63	68-72%	.156" M header (P/N 104432, pg 81)	.156" M header (2 P/N 104715, pg 81)	—	5.0 x.3.0 x 1.2	0.5	69.95	62.95	55.95
204492	SRW-45-4002	45	+5/5, +15/0.7, -5/2, -15/0.7	85-264 @ 47-63	68-72%	.156" M header (P/N 104432, pg 81)	.156" M header (2 P/N 104715, pg 81)	UL/CSA/TUV/CE	5.0 x.3.0 x 1.2	0.5	69.95	62.95	55.95
204476	SRW-45-4004-27	45	+5/5, +15/0.7, +27/1, -15/0.7	85-264 @ 47-63	68-72%	.156" M header (P/N 104432, pg 81)	.156" M header (2 P/N 104715, pg 81)	UL/CUL/TUV/CE	5.0 x.3.0 x 1.1	0.5	69.95	62.95	55.95
204530	SRW-45-4008	45	+3.3/5, +3.3/3 +5/3, +12/0.7	85-264 @ 47-63	68-72%	.156" M header (P/N 104432, pg 81)	.156" M header (2 P/N 104715, pg 81)	UL/CUL/TUV/CE	5.0 x.3.0 x 1.2	0.5	69.95	62.95	55.95
204468	SRW-65-2006	65	+5/9, +12/2	85-264 @ 47-63	72-80%	.156" M header (P/N 104723, pg 81)	.156" M header (P/N 104766, pg 81)	UL/CUL/TUV/CE	6.0 x.4.0 x 1.1	0.9	74.95	67.95	59.95
204484	SRW-65-4003	65	+5/5, +12/2, +24/1, -12/2	85-264 @ 47-63	72-80%	.156" M header (P/N 104723, pg 81)	.156" M header (P/N 104766, pg 81)	UL/CSA/TUV	6.0 x.4.0 x 1.1	0.9	74.95	67.95	59.95
204505	SRW-115-4001	115	+5/120, +12/4, -5/4, -12/2	85-264 @ 47-63	72-80%	.156" M header (P/N 104723, pg 81)	.156" M header (P/N 104766, pg 81)	UL/CUL/TUV/CE	7.0 x.4.3 x 1.2	1.3	99.95	89.95	79.95
204450	SRW-115-4001-48	115	+5/15, +12/1, -5/3, -48/1	85-264 @ 47-63	72-80%	.156" M header (P/N 104723, pg 81)	.156" M header (P/N 104766, pg 81)	UL/CUL/TUV/CE	7.0 x.4.3 x 1.2	1.3	99.95	89.95	79.95

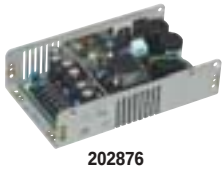
Power-One Switching Power Supplies

NEW


202884


202892


204599


202876


202868


204601

Part No.	Features	MTBF Rating	Efficiency	Ripple and Noise
202884/202892	Overvoltage/overcurrent/short circuit protection; remote sense; 100% burn-in	Greater than 300,000 hrs.	45%	5.0mVp-p
204599	Overload protection	100,000 hrs.	70%	0.3% RMS, 1%p-p
202876	Overvoltage/overload protection; TTL compatible signal power fail warning; EMI and ESD compliance; for commercial and industrial systems which require peak current capabilities	Greater than 175,000 hrs.	73% to 80%	1%p-p
202868	Overvoltage/overload/overtemperature protection; TTL compatible signal power fail warning; EMI, and ESD compliance	Greater than 134,000 hrs.	65% to 80%	1%p-p
208670/208717	Overload/overtemperature protection; output good; current share; remote sense, inhibit	Greater than 340,000 hrs.	66% to 75%	1%p-p
204601	Overvoltage/overload protection; remote sense; TTL compatible input power fail warning; meets most rigorous requirements for commercial, industrial, and datacom systems	Greater than 180,000 hrs.	65% to 80%	1%p-p

Part Number	Product Number	Watts (W)	Output (VDC/A)	Input (VAC @ Hz)	Input Connector (Mating Connector)	Output Connector (Mating Connector)	Certification	Size L" x W" x H"	Wt. (lbs.)	Pricing 1	10	25
202884	HAA5-1.5/0VP-A (Linear)	15	+5/1.5, -5/1.5	100/120/220/ 240 @ 47-63	.119" solder terminal	Solder post	UL/CSA/TUV/CE	6.5 x 4.0 x 1.6	2.6	$44.95	$39.95	$36.49
202892	HBB5-3/0VP-A (Linear)	30	+5/3.0, -5/3.0	100/120/220/ 240 @ 47-63	.119" solder terminal	Solder post	UL/CSA/TUV/CE	7.0 x 4.9 x 2.5	4.7	67.95	59.95	54.95
204599	SPL40-4000	40	+5/5.0, +12/0.5, -5/0.5, -12/0.5	90-264 @ 47-63 (jumper selectable)	8-position screw terminal	8-position screw terminal	UL/CSA/TUV	6.4 x 3.9 x 1.7	0.8	78.95	69.95	63.49
202876	MAP80-4003	80	+5/14, +5/3.5, -5/1.0, -15/1.0	110/230 @ 50/60	.156" M header (P/N 104766, 104715, pg 81)	3-position screw terminal	UL/CSA/TUV/CE	7.2 x 4.3 x 1.8	2.0	124.95	112.45	119.95
208661	SP644	82.5	+3.3/19.5, +12/3.0	100-250 @ 50/60	.156" M header (P/N 104432, pg 81)	Molex F cable (12-pin)	UL/CSA/TUV	6.0 x 4.0 x 1.3	0.8	154.95	139.95	125.95
202868	MAP110-4000P	110	+5/12, +12/5.0, -5/1.0, -12/1.0	85-264 @ 47-63	.156" M header (P/N 104723, pg 81)	.156" M header (13-position)	UL/CSA/TUV/CE	7.0 x 4.3 x 1.9	1.6	159.95	143.95	129.95
208670	MPU1503300S240	135	+3.3/30, +12/3.0	85-250 @ 50-60	.156" M header (P/N 104723, pg 81)	.156" F housing (12-pin)	UL/CSA/TUV	8.1 x 4.2 x 1.5	1.9	159.95	143.95	129.95
204601	MAP140-1024	140	+24/5.8	85-264 @ 47-63	.156" M header (P/N 104723, pg 81)	.156" M header (P/N 104766, 104732, pg 81)	UL/CSA/TUV/CE	7.0 x 4.3 x 1.9	1.5	159.95	143.95	129.95
208717	PU1503300S2	145	+5.1/26, +12/1.0	85-250 @ 50-60	.156" M header (P/N 104723, pg 81)	Molex F cable (24-pin)	UL/CSA/TUV	8.0 x 4.2 x 1.5	1.6	159.95	143.95	129.95

Digital Power Switching Power Supplies

NEW

These Digital Power switching power supplies are economical, high-efficiency open-frame switches that can deliver continuous or peak power from one to three outputs. The 90-250VAC universal inputs allow these power supplies to be used worldwide.

- 75% typical efficiency • UL/CSA/CUL/TUV/CE approved
- Noise and ripple: (US50/70/100/150/250) 25mV max. RMS, 50mVp-p on V1 output with full load; (UP300) 0.5% max. RMS, 1% max. p-p on V1 or V2 with full load


204556


204572


204581

Part Number	Product Number	Watts (W)	Output (VDC/A)	Input (VAC @ Hz)	MTBF Hours (217F @ 30°C)	Input Connector (Mating Connector)	Output Connector (Mating Connector)	Size L" x W" x H"	Wt. (lbs.)	Pricing 1	10	25
204556	US50-105	50	+5/10	90-250 @ 47-63	280,000	.156" M header (P/N 104723, pg 81)	.156" M header (2 P/N 104791, pg 81)	5.0 x 3.0 x 1.1	0.5	$45.95	$41.95	$36.94
208725	US70-421-60	60	+5/7, +12/4, -12/1	90-250 @ 47-63	250,000	.156" M header (P/N 104723, pg 81)	.156" M header (2 P/N 104715, pg 81)	5.0 x 3.2 x 1.5	0.8	49.95	44.95	39.95
208750	USS100-245	100	+5/20	90-250 @ 50-60	160,000	.156" M header (P/N 104723, pg 81)	.156" M header (14-pin)	5.0 x 3.2 x 1.5	0.8	109.95	99.95	88.95
204572	USS150-124	150	+24/6	90-250 @ 47-63	88,000	3-position screw terminal	8-position screw terminal	6.9 x 3.9 x 1.5	1.4	124.95	112.95	99.95
208733	USS256-351	250	+5.5/1.8, +12.9/10, +12.9/0.9	90-250 @ 47-63	140,000	6-pin double row right angle header	24-pin double row right angle header	10.0 x 4.5 x 1.9	1.9	156.95	139.95	126.95
204564	USS250-115	250	+15/16.5	90-250 @ 47-63	140,000	3-position screw terminal	8-position screw terminal	8.0 x 4.5 x 2.0	1.7	156.95	139.95	126.95
204581	UP300-201	300	+5/40, +12/12	90-250 @ 47-63	190,000	3-position screw terminal	8-position screw terminal	8.0 x 4.5 x 2.0	2.0	169.95	152.95	137.95

30-Day Money-Back Guarantee

If you're not completely satisfied, we'll take it back! Details on page 181

Part Number Color Code: New Sale Refurbished Closeout

Special Order Any Mean Well Power Supply | **Mean Well Authorized Distributor** | **Mean Well is an ISO-9001 Certified Company**

• High efficiency • Low output ripple • 100% burn-in • Short circuit, overload over-voltage protected • UL approved • MTBF rated • Two-year warranty

25-Watt Single and Dual Output

- Input voltage: 85-246VAC @ 47-63Hz
- Mating connectors: P/N 104432 & P/N 104715, pg 81
- MTBF table, below
- No minimum load required
- Size: 4.2"L x 2.4"W x 1.2"H

SALE



148603

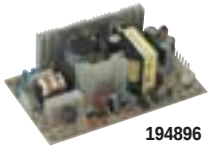
Part No.	Product No.	Watts	Output	1	10	25
148603	PS25-12	25.2	+12VDC @ 2.1A	$22.95	$20.49	$18.95
148689	PD25-12 (Dual)	24.0	+12VDC @ 1.0A -12VDC @ 1.0A	26.95	23.95	21.95

45 & 65-Watt Dual Output

- Input voltage: 90-264VAC @ 47-440Hz; 120-370VDC
- Ripple and noise: 50mV – 150mV peak to peak
- Line regulation: ±1-2%
- DC voltage adjustment: CH1: +10, -5%
- Mating input connector: P/N 104432, pg 81
- Mating output connector: P/N 104731, pg 81
- MTBF table, below



194870



194896

PD45 Series Size: 5.0"L x 3.0"W x 1.1"H

Part No.	Product No.	Watts	Output	1	10	25
194861	PD45A	40.0	5VDC @ 5.0A 12VDC @ 2.5A	$34.95	$31.49	$27.95
194870	PD45B	44.8	5VDC @ 5.0A 24VDC @ 1.8A	34.95	31.49	27.95

PD65 Series Size: 5.0"L x 3.0"W x 1.5"H

Part No.	Product No.	Watts	Output	1	10	25
194888	PD65A	61.1	5VDC @ 7.0A 12VDC @ 3.2A	$21.95	$19.95	$17.95
194896	PD65B	65.5	5VDC @ 6.0A 24VDC @ 2.6A	29.95	26.95	23.95

45-Watt Triple Output

- Input voltage: 90-264VAC @ 47-440Hz
- Mating input connector: P/N 104432, pg 81
- Mating output connector: P/N 104731, pg 81
- Input auto ranging • Data sheet included
- Minimum load: all outputs at 10% of rated load
- MTBF table, below • Size: 5.0"L x 3.0"W x 1.6"H



Part No.	Product No.	Watts	Output	1	10	25	100
88401	PT45B	45	+5VDC @ 3.0A +12VDC @ 2.0A -12VDC @ 0.3A	$34.95	$31.49	$27.95	$24.95

65-Watt Single Output

- Input voltage: 90-264VAC @ 47-440Hz
- Mating connectors: P/N 104432 & P/N 104731, pg 81
- No minimum load required • MTBF table, below
- Size: 5.0"L x 3.0"W x 1.6"H • Weight: 0.6 lbs.



148638

Part No.	Product No.	Watts	Output	1	10	25
201937	PS-65-5	60.0	5VDC @ 12A	$34.95	$31.49	$27.95
148638	PS-65-12	62.4	12VDC @ 5.2A	34.95	31.49	27.95
148646	PS-65-24	64.8	24VDC @ 2.7A	34.95	31.49	27.95
201945	PS-65-27	64.8	24VDC @ 2.4A	34.95	31.49	27.95
201953	PS-65-48	64.8	48VDC @ 1.35A	34.95	31.49	27.95

100-Watt Single Output

- 100% full load burn-in test • Operating temp.: 0-50˚C
- No minimum load requirement
- Compact size, lightweight • MTBF table, below
- Overload, over voltage and short circuit protection
- Input voltage: 88-264VAC @ 47-63Hz
- Size: 8.7"L x 2.4"W x 1.1"H • Weight: 0.8 lbs.



173471

Part No.	Product No.	Watts	Output	1	10	25
173471	LPS100-12	100.8	12VDC @ 8.4A	$59.95	$53.95	$48.95
173462	LPS100-24	100.8	24VDC @ 4.2A	59.95	53.95	48.95

Enclosed Switching DC Power Supplies

25-Watt Single Output

- Input voltage: 100 to 240VAC
- Full input range (no changes required for 110 or 220VAC operation)
- Mating input/output connector: P/N 103587, pg 85, spade terminal
- MTBF table, below • No minimum load required
- Size: 3.9"L x 3.8"W x 1.4"H • Weight: 0.8 lbs.



123254

Part No.	Product No.	Watts	Output	1	10	25	100
123246	S-25-5	25.0	5VDC @ 5.0A	$39.95	$35.95	$32.95	$29.95
123254	S-25-12	25.2	12VDC @ 2.1A	39.95	35.95	32.95	29.95
123262	S-25-15	25.5	15VDC @ 1.7A	39.95	35.95	32.95	29.95
123271	S-25-24	26.4	24VDC @ 1.1A	39.95	35.95	32.95	29.95

40-Watt Single Output

- Input voltage: 100 to 240VAC
- Full input range (no changes required for 110 or 220VAC operation)
- Mating input/output connector: P/N 103587, pg 85, spade terminal
- MTBF table, right
- No minimum load required
- Size: 5.1"L x 3.9"W x 1.5"H • Weight: 1.0 lb.



123289

Part No.	Product No.	Watts	Output	1	10	25	100
123289	S-40-5	40	5VDC @ 8.0A	$44.95	$39.95	$35.95	$32.95
123297	S-40-12	42	12VDC @ 3.5A	44.95	39.95	35.95	32.95
202139	S-40-15	42	15VDC @ 2.8A	44.95	39.95	35.95	32.95
123318	S-40-24	43	24VDC @ 1.8A	44.95	39.95	35.95	32.95

40-Watt Triple Output

- Input voltage: 85 to 264VAC
- Ripple and noise: 100mV–120mV peak to peak
- Line regulation: 0.5%–1.0%
- DC voltage adjustment: (CH1) +10%, -5%
- Mating input/output connector: P/N 103587, pg 85, spade terminal
- MTBF table, below
- Size: 5.1"L x 3.8"W x 1.5"H • Weight: 1.0 lb.



201988

Part No.	Product No.	Watts	Output	1	10	25	100
201988	T-40A	41.5	5VDC @ 3A 12VDC @ 2A -5VDC @ 0.5A	$49.95	$44.95	$39.95	$35.95
201996	T-40B	45	15VDC @ 3A 12VDC @ 2A -12VDC @ 0.5A	49.95	44.95	39.95	35.95
202008	T-40C	45	15VDC @ 3A 15VDC @ 1.5A -15VDC @ 0.5A	49.95	44.95	39.95	35.95

MTBF Table

Product Number	MTBF (Hours) @ Full Load/40˚C	Product Number	MTBF (Hours) @ Full Load/40˚C
PS-25	576,000	PS-65	300,000
PD-25	507,000	LPS-100	203,000
PD-45	288,000	S-25	330,000
PD-65	288,000	S-40	314,000
PT-45	262,000	T-40	305,600

Special Order Any Mean Well Power Supply | **Mean Well Authorized Distributor** | Mean Well is an ISO-9001 Certified Company

• High efficiency • Low output ripple • 100% burn-in • Short circuit, overload over-voltage protected • UL approved • MTBF rated • Two-year warranty

60-Watt Single Output

- Input voltage: 100 to 240VAC
- Full input range (no changes required for 110 or 220VAC operation)
- Mating input/output connector: P/N 103587, pg 85, spade terminal
- MTBF table, below
- No minimum load required
- Size: 6.3"L x 3.8"W x 1.5"H • Weight: 1.2 lbs.



123351

Part No.	Product No.	Watts	Output	1	10	25	100
123326	S-60-5	60	5VDC @ 12A	$49.95	$44.95	$39.95	$35.95
123334	S-60-12	60	12VDC @ 5A	49.95	44.95	39.95	35.95
123342	S-60-15	60	15VDC @ 4A	49.95	44.95	39.95	35.95
123351	S-60-24	60	24VDC @ 2.5A	49.95	44.95	39.95	35.95

60-Watt Dual Output

- Input voltage: 100 to 240VAC
- Full input range (no changes required for 110 or 220VAC operation)
- Mating input/output connector: P/N 103587, pg 85, spade terminal
- MTBF table, below
- Minimum load: all outputs at 10% of rated load
- Size: 6.3"L x 3.8"W x 1.5"H • Weight: 1.2 lbs.



123457

Part No.	Product No.	Watts	Output	1	10	25	100
123457	D-60A	56	5VDC @ 4A, 12VDC @ 3A	$54.95	$49.95	$44.95	$39.95
123465	D-60B	58	5VDC @ 3A, 24VDC @ 1.8A	54.95	49.95	44.95	39.95

60-Watt Triple Output

- Input voltage: 100 to 240VAC
- Full input range (no changes required for 110 or 220VAC operation)
- Mating input/output connector: P/N 103587, pg 85, spade terminal
- MTBF table, below • Weight: 1.2 lbs.
- Minimum load: all outputs at 10% of rated load • Size: 6.3"L x 3.8"W x 1.5"H



123481

Part No.	Product No.	Watts	Output	1	10	25	100
123481	T-60B	61	5VDC @ 5A, 12VDC @ 2.5A, -12VDC @ 0.5A	$54.95	$49.95	$44.95	$39.95
123490	T-60C	63	5VDC @ 5A, 15VDC @ 2.0A -15VDC @ 0.5A	54.95	49.95	44.95	39.95

60-Watt Quad Output

- Input voltage: 85-264VAC @ 47-63Hz
- Line regulation: 0.5%-1.0%
- Ripple and noise: 100-120mV peak to peak
- DC voltage adjustment: CH 1: +10, -5%
- Minimum load: all output at 10% rated load
- Mating input/output connector: P/N 103587, pg 85, spade terminal
- MTBF table, below • Size: 6.3"L x 3.9"W x 1.5"H • Weight: 1.2 lbs.



Part No.	Product No.	Watts	Output	1	10	25	100
147045	Q60	60	+5VDC @ 5.5A; -5VDC @ 0.5A +12VDC @ 2A; -12VDC @ 0.5A	$59.95	$53.95	$47.95	$43.95

MTBF Table

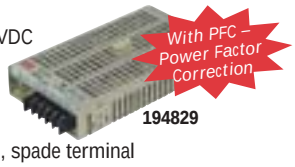
Product Number	MTBF (Hours) @ Full Load/40°C
S-60	316,000
D-60	301,000
T-60	281,000
Q-60	284,000
SP-75	208,800

Product Number	MTBF (Hours) @ Full Load/40°C
S-100F	314,000
SP-100	211,000
D-120	272,000
Q-120	261,000

More Mean Well Power Supplies continued on next page.

75-Watt Single Output

- Input range: 85-264VAC @ 47-63Hz; 120-370VDC
- Ripple and noise: 80mV -100mV peak to peak
- DC voltage adjustment: CH1:+10%,-5%
- Soft start-circuit, limiting AC surge current
- Line regulation: ±5% • MTBF table, below
- Mating input/output conn.: P/N 103587, pg 85, spade terminal
- Size: 7.0"L x 3.9"W x 1.3"H • Weight: 1.2 lbs.



194829

Part No.	Product No.	Watts	Output	1	10	25	100
194829	SP75-5	75	5VDC @ 15A	$69.95	$62.95	$56.95	$49.95
194837	SP75-12	75	12VDC @ 6.3A	69.95	62.95	56.95	49.95
194845	SP75-15	75	15VDC @ 5A	69.95	62.95	56.95	49.95
194853	SP75-24	75	24VDC @ 3.2A	69.95	62.95	56.95	49.95

100-Watt Single Output

- Input voltage: 95 to 130VAC or 190 to 260VAC
- Jumper selectable input
- Mating input/output connector: P/N 103587, pg 85, spade terminal
- MTBF table, below • No minimum load required
- Size: 7.8"L x 3.9"W x 1.5"H • Weight: 1.4 lbs.

7.5V, 15V and 48V also available!

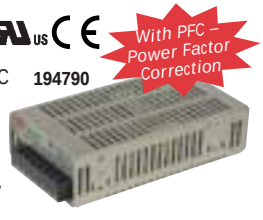


123385

Part No.	Product No.	Watts	Output	1	10	25	100
201961	S-100F-5	100	5VDC @ 20A	$64.95	$58.95	$52.95	$47.95
123385	S-100F-12	102	12VDC @ 8.5A	64.95	58.95	52.95	47.95
201970	S-100F-24	100	24VDC @ 4.5A	64.95	58.95	52.95	47.95

100-Watt Single Output

- PFC: 98% @ 115VAC; 95% @ 230VAC
- Input voltage: 86-264VAC @ 47-63Hz; 120-370VDC
- Ripple and noise: 100mV – 150mV peak to peak
- DC voltage adjustment: CH1: +10, -5%
- Mating input/output connector: P/N 103587, pg 85, spade terminal
- Line regulation: ±5% • MTBF table, below
- Size: 6.7"L x 3.7"W x 1.8"H • Weight: 1.5 lbs.



194790

Part No.	Product No.	Watts	Output	1	10	25	100
194790	SP100-5	100	5VDC @ 20A	$79.95	$71.95	$64.95	$57.95
194802	SP100-12	100	12VDC @ 8.5A	79.95	71.95	64.95	57.95
194811	SP100-24	100	24VDC @ 4.2A	79.95	71.95	64.95	57.95

120-Watt Dual Output

- Input voltage: 90-130VAC or 180-260VAC
- Switch selectable input
- Mating input/output connector: P/N 103587, pg 85, spade terminal
- Minimum load: all outputs at 10% of rated load
- MTBF table, left
- Size: 8.0"L x 4.4"W x 2.0"H • Weight: 1.9 lbs.



132409

Part No.	Product No.	Watts	Output	1	10	25	100
132409	D-120A	120	5VDC @ 12A, 12VDC @ 5A	$69.95	$62.95	$56.95	$49.95
132396	D-120B	126	5VDC @ 6A, 24VDC @ 4A	69.95	62.95	56.95	49.95

120-Watt Quad Output

- Input voltage: 88-132VAC or 176-264VAC @ 47-63Hz
- Mating input/output connector: P/N 103587, pg 85, spade terminal
- Switch selectable input
- Minimum load: all outputs at 10% of rated load
- MTBF table, left
- Size: 8.0" x 4.4"W x 2.0"H • Weight: 2.0 lbs.



132388

Part No.	Product No.	Watts	Output	1	10	25
132388	Q-120B	120	+5VDC @ 11A; -5VDC @ 1A +12VDC @ 4A; -12VDC @ 1A	$74.95	$67.95	$60.95
132370	Q-120D	124	+5VDC @ 8A; 24VDC @ 2A +12VDC @ 2A; -12VDC @ 1A	74.95	67.95	60.95

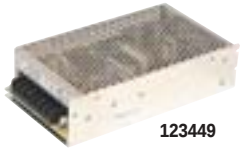
Special Order Any Mean Well Power Supply **Mean Well Authorized Distributor** **Mean Well is an ISO-9001 Certified Company**

• High efficiency • Low output ripple • 100% burn-in • Short circuit, overload over-voltage protected • UL approved • MTBF rated • Two-year warranty

150-Watt Single Output

9V also available!

- Input voltage: 90 to 130VAC or 180 to 260VAC
- Mating input/output connector: P/N 103587, pg 85, spade terminal
- Switch selectable input
- MTBF table, below
- No minimum load required
- Size: 7.8"L x 4.3"W x 2.0"H
- Weight: 1.8 lbs.



123449

Part No.	Product No.	Watts	Output	1	10	25	100
123393	S-150-5	150	5VDC @ 30A	$69.95	$62.95	$56.95	$49.95
123414	S-150-7.5	150	7.5VDC @ 20A	69.95	62.95	56.95	49.95
123422	S-150-12	150	12VDC @ 12.5A	69.95	62.95	56.95	49.95
202024	S-150-13.5	150	13.5VDC @ 11.2A	69.95	62.95	56.95	49.95
123431	S-150-15	150	15VDC @ 10A	69.95	62.95	56.95	49.95
123449	S-150-24	156	24VDC @ 6.5A	69.95	62.95	56.95	49.95
202032	S-150-27	150	27VDC @ 5.6A	69.95	62.95	56.95	49.95
167345	S-150-48	154	48VDC @ 3.2A	69.95	62.95	56.95	49.95

150-Watt Single Output

With PFC – Power Factor Correction

- Input voltage: 85-264VAC @ 47-63Hz
- PFC: 98% @ 115VAC; 95% @ 230VAC
- Overload, over voltage and short circuit protection
- Mating input/output connector: P/N 103587, pg 85, spade terminal
- No minimum load requirement
- 100% full load burn-in test
- MTBF table, below • Operating temp.: 0-50˚C
- Size: 7.8"L x 3.9"W x 2.0"H • Weight: 1.7 lbs.



173403

Part No.	Product No.	Watts	Output	1	10	25
201902	SP-150-3.3	99	3.3VDC @ 30A	$89.95	$80.95	$72.95
201911	SP-150-5	150	5VDC @ 30A	89.95	80.95	72.95
173420	SP-150-12	150	12VDC @ 12.5A	89.95	80.95	72.95
173411	SP-150-15	150	15VDC @ 10A	89.95	80.95	72.95
173403	SP-150-24	150	24VDC @ 6.5A	89.95	80.95	72.95
201929	SP-150-48	154	48VDC @ 3.2A	89.95	80.95	72.95

200-Watt Single Output

With PFC – Power Factor Correction

- Input voltage: 85-264VAC @ 47-63Hz; 120-370VDC
- Line regulation: ±5% • MTBF table, below
- Ripple and noise: 100mV – 150mV peak to peak
- DC voltage adjustment: CH1: +10, -5%
- Soft-start circuit, limiting AC surge current
- Mating input/output connector: P/N 103587, pg 85, spade terminal
- Size: 7.8"L x 3.9"W x 2.0"H • Weight: 1.9 lbs.



194773

Part No.	Product No.	Watts	Output	1	10	25
202041	SP-200-5	200.0	5VDC @ 40A	$99.95	$89.95	$80.95
194773	SP-200-12	200.4	12VDC @ 16.7A	99.95	89.95	80.95
202059	SP-200-15	200.0	15VDC @ 13.4A	99.95	89.95	80.95
194781	SP-200-24	201.6	24VDC @ 8.4A	99.95	89.95	80.95
202067	SP-200-48	200.0	48VDC @ 4.2A	99.95	89.95	80.95

240-Watt Single Output

7.5V and 30V also available!

- Input voltage: 88 to 132VAC or 176 to 264VAC automatic switching
- Mating input/output connector: P/N 103587, pg 85, spade terminal
- Automatic fan controls internal temperature
- MTBF table, right • Size: 8.0"L x 3.7"W x 2.6"H • Weight: 2.5 lbs.



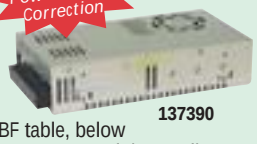
137648

Part No.	Product No.	Watts	Output	1	10	25	100
202083	S-240-5	200	5VDC @ 40A	$119.95	$107.95	$96.95	$86.95
137648	S-240-12	216	12VDC @ 18A	119.95	107.95	96.95	86.95
202075	S-240-15	225	15VDC @ 15A	119.95	107.95	96.95	86.95
137656	S-240-24	240	24VDC @ 10A	119.95	107.95	96.95	86.95
167337	S-240-48	240	48VDC @ 5A	119.95	107.95	96.95	86.95

300-Watt Single Output

With PFC – Power Factor Correction

- PFC: 98% @ 115VAC; 95% @ 230VAC
- Input voltage: 100 to 240VAC (with PFC - Power Factor Correction)
- Mating input/output connector: P/N 103587, pg 85, spade terminal
- Automatic fan controls internal temperature • MTBF table, below
- Over-temperature protected • Size: 9.0"L x 4.5"W x 2.0"H • Weight: 2.6 lbs.



137390

Part No.	Product No.	Watts	Output	1	10	25
202091	SP-300-5	250	5VDC @ 50A	$159.95	$143.95	$129.95
137390	SP-300-12	288	12VDC @ 24A	159.95	143.95	129.95
202104	SP-300-15	285	15VDC @ 19A	159.95	143.95	129.95
137402	SP-300-24	300	24VDC @ 12.5A	159.95	143.95	129.95
161980	SP-300-48	300	48VDC @ 6.25A	159.95	143.95	129.95

320-Watt Single Output

NEW

- Input voltage: 88-132VAC/176-264VAC @ 47-63Hz
- Mating input/output connector: P/N 103587, pg 85, spade terminal
- Automatic on/off cooling fan • MTBF table, below
- Size: 8.5"L x 4.5"W x 2.0"H • Weight: 2.5 lbs.



196656

Part No.	Product No.	Watts	Output	1	10	25
207212	S-320-7.5	320	7.5VDC @ 36A	$129.95	$116.95	$104.95
207204	S-320-12	320	12VDC @ 25A	129.95	116.95	104.95
196656	S-320-24	320	24VDC @ 12.5A	129.95	116.95	104.95
207191	S-320-48	320	48VDC @ 6.5A	129.95	116.95	104.95

480-Watt Single Output

With PFC – Power Factor Correction

- Input voltage: 100-240VAC @ 50/60Hz
- Built-in remote control
- Mating input/output connector: P/N 103587, pg 85, spade terminal
- PFC: 98% @ 115VAC; 95% @ 230VAC
- Short circuit, overload, over voltage and over temperature protection
- Cooling fan (temperature sensing) • Remote voltage sensing
- MTBF table, below • Size: 7.3"L x 4.8"W x 3.8"H • Weight: 4.2 lbs.



147053

Part No.	Product No.	Watts	Output	1	10	25
190692	SP500-12	480	12VDC @ 40A	$229.95	$206.95	$185.95
147053	SP500-24	480	24VDC @ 20A	229.95	206.95	185.95
190705	SP500-27	486	27VDC @ 18A	229.95	206.95	185.95
161795	SP500-48	480	48VDC @ 10A	229.95	206.95	185.95

500-Watt Single Output

With Parallel Operation

With PFC – Power Factor Correction

- PFC: 98% @ 115VAC; 95% @ 230VAC
- Input voltage: 90-264VAC @ 47-63Hz; 127-370VDC
- Ripple and noise: 200mV – 240mV peak to peak
- Parallel/series operation can reach 3KW
- Current sharing/remote control/remote sense
- Line regulation: ±2% • MTBF table, below
- Mating input/output connector: P/N 103587, pg 85, spade terminal
- Size: 11.0"L x 5.0"W x 2.5"H • Weight: 5.5 lbs.



190713

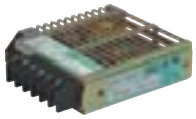
Part No.	Product No.	Watts	Output	1	10	25
202112	PSP-500-5	400	5VDC @ 80A	$269.95	$242.95	$218.95
190713	PSP-500-12	500	12VDC @ 41.5A	269.95	242.95	218.95
202121	PSP-500-15	495	15VDC @ 33A	269.95	242.95	218.95
190721	PSP-500-24	500	24VDC @ 20.8A	269.95	242.95	218.95
190730	PSP-500-27	500	27VDC @ 18.5A	269.95	242.95	218.95
190748	PSP-500-48	500	48VDC @ 10.5A	269.95	242.95	218.95

MTBF Table

Product Number	MTBF (Hours) @ Full Load/40˚C	Product Number	MTBF (Hours) @ Full Load/40˚C
S-150	286,000	SP-300	168,000
SP-150	191,000	S-320	188,000
SP-200	183,000	SP-500	133,000
S-240	179,000	PSP-5000	130,000

Volgen Switching Power Supplies

NEW


205751


205727


205794


205882


205989


205858

- Input/output connectors: screw terminals
- EXU and PRK series: overvoltage and overcurrent protection built-in

Part Number	Product Number	Watts (W)	Output (VDC/A)	Input (VAC @ Hz)	Efficiency (%)	Certification	Size L" x W" x H"	Wt. (lbs.)	Pricing 1	10	25
205719	EXU-120R9	10	+12/0.9	100/120 @ 50-60	72	UL/CSA	3.7 x 2.9 x 0.9	0.4	$41.95	$37.95	$33.95
205751	EXU-150R7	10	+15/0.7	100/120 @ 50-60	72	UL/CSA	3.7 x 2.9 x 0.9	0.4	41.95	37.95	33.95
205760	EXU-240R5	10	+24/0.45	100/120 @ 50-60	72	UL/CSA	3.7 x 2.9 x 0.9	0.4	41.95	37.95	33.95
205727	EXU-15001	15	+15/1.0	100/120 @ 50-60	67	UL/CSA	4.4 x 2.9 x 0.9	0.4	49.95	44.95	39.95
208961	PRK15U-0524W	15	+5/2.5, +24/0.4	120 @ 50-60	15	UL/CSA	4.6 x 3.2 x 1.1	0.5	49.95	44.95	39.95
205794	PRK15U-1212W	15	+12/1.0, +12/0.5	100/120 @ 50-60	64	UL/CSA	5.2 x 3.2 x 1.1	0.4	49.95	44.95	39.95
208952	PRK15U-0512W	16	+5/2.5, +12/0.7	120 @ 50-60	64	UL/CSA	4.6 x 3.2 x 1.1	0.5	49.95	44.95	39.95
208944	EXU-5006	30	+5/6.0	120 @ 50-60	76	UL/CSA	4.7 x 2.9 x 1.4	0.6	59.95	53.95	47.95
205882	MRE-05006U	30	+5/6.0	115/240 @ 50-60	N/A	UL/CSA/TUV	6.2 x 3.9 x 1.4	0.5	59.95	53.95	47.95
209023	SNP30-12S	30	+12/2.6	85-264 @ 50-60	78	UL/CSA/CE	4.4 x 3.0 x 1.3	0.5	59.95	53.95	47.95
205735	EXU-15002	30	+15/2.0	100/120 @ 50-60	76	UL/CSA	5.4 x 2.9 x 1.3	0.5	59.95	53.95	47.95
205866	MRE-15002U	30	+15/2.0	115/240 @ 50-60	N/A	UL/CSA/TUV	6.1 x 3.9 x 1.5	0.5	59.95	53.95	47.95
205778	EXU-480R6	30	+48/0.6	100/120 @ 50-60	76	UL	5.4 x 2.9 x 1.3	0.5	59.95	53.95	47.95
205807	PRK30U-0512W	30	+5/3.0, +12/1.2	100/120 @ 50-60	75	UL/CSA	6.3 x 3.6 x 1.5	0.6	59.95	53.95	47.95
205815	PRK30U-0524W	30	+5/3.0, +24/0.6	100/120 @ 50-60	75	UL/CSA	6.3 x 3.6 x 1.5	0.6	59.95	53.95	47.95
205823	PRK30U-1212W	30	+12/1.0, +12/1.0	100/120 @ 50-60	75	UL/CSA	6.3 x 3.6 x 1.5	0.6	59.95	53.95	47.95
205874	MRE-124R2U	50	+12/4.2	115/240 @ 50-60	N/A	UL/CSA/TUV/CE	7.1 x 3.9 x 1.6	0.7	75.95	67.95	61.95
205997	ERK50-0524W	50	+5/6.0, +24/1.5	120/240 @ 50-60	N/A	—	7.9 x 4.1 x 1.6	1.4	75.95	67.95	61.95
205831	PRK50U-1515W	50	+15/1.5, +15/1.5	100/120 @ 50-60	75	UL/CSA	7.6 x 3.7 x 1.5	0.6	75.95	67.95	61.95
205680	ESK50U-0524W	51	+5/3.0, +24/1.5	115/220 @ 50-60	72	UL	7.1 x 4.0 x 1.2	0.8	75.95	67.95	61.95
208936	EXU-481R1	52.8	+48/1.1	120 @ 50-60	78	UL	4.7 x 3.6 x 1.5	0.8	75.95	67.95	61.95
205840	PRK70U-1515	70	+5/5.0, +15/2.0, -15/1.0	100/120 @ 50-60	75	UL/CSA	8.7 x 4.1 x 2.8	1.0	94.95	84.95	76.95
205989	ESK70U-0524WA	72.5	+5/2.5, +24/2.5	115/220 @ 50-60	72	UL/CSA	8.7 x 3.9 x 1.5	1.3	94.95	84.95	76.95
205698	ESK80U-1515	74	+5/10, +15/0.8, -15/0.8	115/220 @ 50-60	72	UL/CSA	8.7 x 5.0 x 1.5	1.9	94.95	84.95	76.95
205858	JRK-115B	75	+5/4.5, +15/3.5, +24/0.4, -5/1.6, -15/1.5	100/240 @ 50-60	75	—	10.5 x 5.0 x 2.5	2.4	94.95	84.95	76.95
205971	MRE-156R6U	100	+15/6.6	115/240 @ 50-60	N/A	UL/CSA/TUV	8.6 x 3.9 x 2.0	1.2	119.95	107.95	96.95
205786	EXU-482R2	105	+48/2.2	100/120 @ 50-60	86	UL	6.9 x 3.7 x 1.8	0.6	119.95	107.95	96.95
205701	EXU-05030	150	+5/30	100/120 @ 50-60	80	UL/CSA	7.7 x 3.7 x 2.3	1.6	152.95	137.95	123.95
205743	EXU-15010	150	+15/10	100/120 @ 50-60	80	UL/CSA	7.7 x 3.8 x 2.3	1.9	152.95	137.95	123.95
206009	MRE-1501U	150	+15/10	120/240 @ 50-60	N/A	UL/CSA/TUV	9.6 x 4.1 x 2.4	2.6	152.95	137.95	123.95

VOLGEN 30-Watt

12VDC @ 2.5 Amps



- **Output voltage: +12VDC @ 2.5A**
- Adjustable outputs ±10%
- Input voltage: 100/230VAC @ 50-60Hz

Part No.	Product No.	1	10	50
167687	MRE122R5U	$14.95	$13.49	$11.95

COMPAQ 73-Watt 4 Output

SALE



- **Output voltage: +5VDC @ 10A, +12VDC @ 1.5A, -5VDC @ 0.3A, -12VDC @ 0.3A**
- Input voltage: 100/240VAC @ 50-60Hz

Part No.	Product No.	1	10	25
101813	141688-003	$14.95	$12.95	$10.95

GlobTek 150-Watt

24VDC @ 6.5 Amps



SALE

- **Output voltage: +24VDC @ 6.5A**
- Input voltage: 115/230 @ 50-60Hz

Part No.	Product No.	1	10	25
199515	RT-3S150-24	$64.95	$58.49	$52.95

SALE

30 to 500-Watt Switching Power Supplies

Part Number	Manufacturer	Product Number	Watts (W)	Output (VDC/A)	Input (VAC @ Hz)	Input Connector/Cord	Output Connector	Certification	Size L" x W" x H"	Wt. (lbs.)	Pricing 1	10	50
167687	Volgen	MRE122R5U*	30	+12/2.5	100/230 @ 50-60	Screw terminal (P/N 103587, pg 85)	Screw terminal (P/N 103587, pg 85)	UL/CSA/TUV/CE	6.2 x 3.9 x 1.5	1.1	$14.95	$13.49	$11.95
190140	Computer Products	NFN40-7643E	40	+5/5, +12/1 -12/0.5	100-240 @ 50-60	3-prong receptacle (P/N 38050, pg 56)	6-pin Molex F cable	UL/CSA	6.0 x 4.0 x 1.7	1.7	6.25	5.59	4.95
146843	Astec	AC9232-01	50	+5/6, +12/2.5 -5/0.5, -12/0.5	115/230 @ 50-60	.156" M header (P/N 104432, pg 81)	.156" M header (P/N 104432/104766, pg 81)	UL/CSA/VDE	8.0 x 4.5 x 2.5	2.0	19.95	17.95	15.95
101813	Compaq	141688-003*	73	+5/10, +12/1.5, -5/0.3, -12/0.3	100/240 @ 50-60	3-prong receptacle (P/N 38050, pg 56)	.156" M header 103392, pg 82; 78300 (2), 42075 (1), pg 125	UL/CSA/TUV	6.6 x 3.8 x 2.9	2.1	14.95	12.95	10.95
199515	GlobTek	RT-3S150-24*	150	+24/6.5	115/230 @ 50-60	Screw terminal (P/N 103587, pg 85)	Screw terminal (P/N 103587, pg 85)	UL/CE	7.9 x 4.3 x 1.9	1.8	64.95	58.49	52.95
202905	Power One	PFC-500-1024	500	+24/21	85-264 @ 47-63	3-position screw terminal	6-position screw terminal	UL/CSA/TUV/CE	9.0 x 5.0 x 2.6	4.4	424.95	382.95	344.95
202913	Power One	PFC-500-1048	500	+48/10.4	85-264 @ 47-63	3-position screw terminal	6-position screw terminal	UL/CSA/TUV/CE	9.0 x 5.0 x 2.6	3.7	424.95	382.95	344.95

* See photo above

13.8VDC Precision Regulated Linear Power Supplies

- Input voltage: 115VAC @ 60Hz
- Fuse protected
- Illuminated rocker switch
- Heavy duty 5'8" 3-prong power cord
- Short circuit protection
- Output terminals:
  see page 66 for mating cigarette plugs and
  page 107 for mating banana terminal plugs

135845
Banana & Cigarette



136581
Banana terminal



138667
Banana terminal (rear)



Part No.	Model No.	Watts	Output Current	Output Terminals	Size (L" x W" x H")	Wt. (lbs.)	1	10	25
135845	RPS1204	55.2	4A	Banana terminals / cigarette plug	6.7 x 5.2 x 3.2	5.5	$29.95	$26.95	$23.95
136581	RPS1207†	96.6	7A	Banana terminals	8.7 x 5.7 x 3.6	8.5	59.95	53.95	48.95
138667	38-381	138.0	10A	Banana terminals (rear)	7.0 x 6.6 x 4.3	10.0	69.95	62.95	56.95
138675	52-192012	276.0	20A	Banana terminals	10.0 x 7.8 x 4.4	15.9	109.95	99.95	89.95

† P/N 136581 includes overheating protection

DIN-Rail Switching Power Supplies

- Low cost, high reliability
- International AC input range
- Soft start circuit, limiting AC surge current
- Short circuit, overload, over voltage protected
- Built in EMI filter, low ripple noise
- 100% full load burn in test
- For DIN-Rail terminal blocks see page 80

UL-508

SALE

192698



192680





185965
Sold in 1 meter (39") length

Part No.	Mean Well No.	Output Voltage	Input Voltage (VAC @ Hz/VDC)	Input Current @ Nominal Load	Size (L" x W" x H")	Wt. (lbs.)	1	10	25
192698	DR4512	12VDC @ 3.5A	85-264 @ 47-63/120-370	1.5A(115V)/750mA(230V)	3.0 x 2.6 x 3.6	0.7	$49.95	$44.95	$39.95
192680	DR4524	24VDC @ 2A	85-264 @ 47-63/120-370	1.5A(115V)/750mA(230V)	3.0 x 2.6 x 3.6	0.7	59.95	53.95	48.95

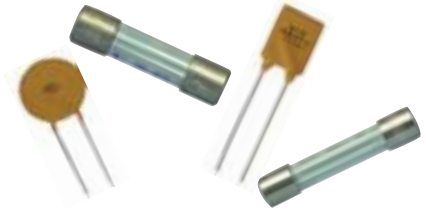
Din Mounting Rail

DIN rail enables easy installation of components such as fuseable terminal blocks & power supplies configured for DIN mounting.

- Sold in 1 meter (39") length

Part No.	Entrelec No.	Description	Material	Type	Length	1	10	100
185965	017322005	Prepunched	Zinc bichromate plate steel	PR30	1 meter (39")	$5.95	$5.35	$4.79

For our complete selection of Fuses and Accessories see pages 66 - 67.





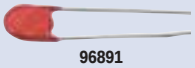
For our complete selection of Power Plugs and Jacks see page 66.

Make sure you are Protected Against Voltage Transients

ZA Series Varistors (Radial Lead)

- Low DC voltage applications
- UL recognized as "transient voltage surge suppressors"
- Used for highly sensitive devices
- Low transient energy
- Computer equipment
- Printed circuit board designs
- Alarm systems

SALE ZA Series Part No.	Mfr. Cross Ref. No.	Size Disc. Dia. (mm)	Characteristics at 25°C: Varistor Voltage @ 1 mA DC Test Current Min. Volts	$V_{N(dc)}$ Volts	Max. Volts	Max. Clamping Voltage @ Ip Value Current (8/20µs) V zolts	Ip=2.0A Amps	Pricing 1	10	100	1000
96891	V8ZA1	7	6.0	8.2	11.0	22	5	$.20	$.18	$.16	$.15
190449	V18ZA1	7	16.0	18.0	20.0	35	2.5	.29	.25	.22	.19
96920	V22ZA1	7	20.0	22.0	24.0	48	1.0	.28	.25	.23	.19



96891

DC-to-DC Converters

25-Watt DC-to-DC Converters

- Input voltage: 9.2VDC-18VDC
- Voltage output adjustable
- Built-in EMI filter, low ripple noise
- Size: 3.9"L x 3.9"W x 1.5"H
- Short-circuit, over voltage and overload protection
- Input/output connector: screw down terminals
- Mating connectors: P/N 103587 or P/N 103595, pg 85



175812

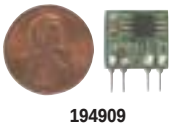
Part No.	Product No.	Output	1	10	50	100
175661	SD25A5	5V @ 5A	$37.95	$33.95	$29.95	$26.95
175804	SD25A12	12V @ 2.1A	39.95	35.95	32.95	29.95
175812	SD25A24	24V @ 1.1A	39.95	35.95	32.95	29.95

Low-Voltage DC-to-DC Converters

Power your BASIC STAMP projects with AA batteries (recommended P/N 151087, pg 168).

Requires little board space

- Can be used with Parallax products on pages 169 - 170



194909



194941

Part No.	Mfr. Cross Ref. No.	Input Voltage	Max. Output (Typical)	Output Ripple (Average)	Pricing 1	10
194909	MP-20	2 – 3.6VDC	5VDC @ 72mA	<35mV	$19.99	$17.99
194917	MP-40	1.2 – 5VDC	5VDC @ 190mA	<35mV	29.99	26.99
194925	MP-55	0.9 – 5VDC	5VDC @ 110mA; 3.3VDC @ 130mA	35mV	34.99	31.49
194941	MP-300P	1.8 – 10.5VDC	5VDC @ 300mA	<35mV	34.99	31.49

DATEL · Lambda · Power Cube · Power-One

NEW

3 to 300-Watt DC-to-DC Converters

Shindengen · Universal Microelectronics · Tri-Mag, Inc.


206113


206130


206050/206041


205946/205954


203561


203570


206105


206068/206076/206092

Part Number	Product Number	Wattage (W)	Input Voltage (VDC)	Input Range (VDC)	Output Voltage (VDC)	Output Current (A)	Ripple p-p (mV)	Efficiency (Typical)	Size L" x W" x H"	Pricing 1	10	25
Datel (UL/CUL/VDE/CE approved)												
206113	BCP-5/15-3.3/15-D48	75	48	36-75	+3.3/+5.0	15.0/15.0	50/50	88%	2.3 x 2.4 x 0.5	$99.95	$89.95	$79.95
Lambda (UL/CSA/CE approved)												
206121	PH300F-280-3	180	300	200-400	+3	60.0	100	73%	5.8 x 3.4 x 0.5	$119.95	$107.95	$107.95
206130	PH300F-280-12	300	300	200-400	+12	25.0	100	86%	5.8 x 3.4 x 0.5	99.95	89.95	89.95
Power Cube (UL/CUL/VDE/CE approved)												
206050	LPD150-048-15-VC-075	75	48	36-76	+15	6.0	1%	80-90%	2.3 x 1.8 x 0.4	$59.95	$53.95	$53.95
206041	PD150-048-05-PC	150	48	36-76	+5	30.0	1%	80-90%	2.3 x 1.8 x 0.4	75.95	68.49	68.49
206033	PD300-300-15-PC	300	300	200-300	+15	20.0	1%	80-90%	4.6 x 1.8 x 0.4	89.95	79.95	79.95
Power One (UL/CSA/TUV/CE approved)												
205946	DFC10E48S5	10	48	36-72	+5	2.0	60	81%	2.0 x 1.0 x 0.4	$39.95	$35.95	$32.95
205954	DFC10E48S12	10	48	36-72	+12	0.9	61	83%	2.0 x 1.0 x 0.4	39.95	35.95	32.95
203561	HBD0602GE-A1V1	60	48	34-75	+3.3/+5.0	15.0/12.0	75/100	79%	2.3 x 2.4 x 0.5	29.95	26.95	23.95
203570	HBS075YH-A	75	24	18-36	+12	6.25	150	85%	2.3 x 2.4 x 0.5	29.95	26.95	26.95
Shindengen												
206105	HGE05024	120	24	20-32	+5	24.0	400	80%	4.5 x 2.3 x 0.5	$69.95	$62.95	$62.95
Tri-Mag												
206068	TDB4W-2405S	3	24	18-36	+5	0.5	50	70%	1.2 x 0.8 x 0.5	$19.95	$17.95	$15.95
206076	TDB4W-4805S	3	48	36-72	+5	0.5	50	70%	1.2 x 0.8 x 0.5	19.95	17.95	15.95
Universal Microelectronics												
206092	UM1014	3	48	36-72	+5/-5	0.25/0.25	100	77%	1.2 x 0.8 x 0.4	$39.95	$35.95	$32.95
206084	UM1106	25	12	9-18	+5/+12/-12	3.0/0.45/0.45	75	74%	4.5 x 2.6 x 0.8	65.95	59.95	59.95

MW

3 and 15-Watt DC-to-DC Converters

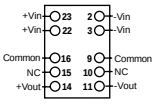
- Short-circuit/overcurrent protection
- One-year warranty

Mean Well is an ISO-9001 Certified Company

155918



Fig. 1



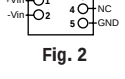


Fig. 2

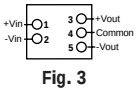


Fig. 3

Part Number	Product Number	Fig.	Wattage (W)	Input Voltage Range (VDC)	Output Voltage (VDC)	Output Current (mA)	Ripple p-p (mV)	Pins	Size L" x W" x H"	Pricing 1	10	50
155918	DCW03A05	1	3	9-18	+5/-5	300	100	8	1.2 x 0.7 x 0.5	$24.95	$22.49	$19.95
161701	DCW03A12	1	3	9-18	+12/-12	125	100	8	1.3 x 0.8 x 0.5	24.95	22.49	19.95
155715	SKE15A05	2	15	9-18	+5	3,000	50	4	2.0 x 2.0 x 0.4	29.95	26.95	23.95
155707	SKE15A12	2	15	9-18	+12	1,250	60	4	2.0 x 2.0 x 0.4	27.95	24.95	22.49
155694	SKE15A24	2	15	9-18	+24	625	80	4	2.0 x 2.0 x 0.4	29.95	26.95	23.95
161728	DKE15A12	3	15	9-18	+12/-12	625	60	5	2.0 x 2.0 x 0.4	29.95	26.95	23.95

ASTEC

** Advance Power (188162)

SALE

3 to 150-Watt DC-to-DC Converters

- Over temperature, over voltage and short-circuit protection

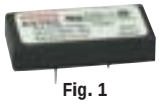


Fig. 1



Fig. 2



Fig. 3

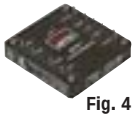


Fig. 4



Fig. 5



Fig. 6

Part Number	Product Number	Fig.	Wattage (W)	Input Voltage	Input Range (VDC)	Output Voltage (VDC)	Output Current (A)	Ripple p-p (mV)	Pins	Size L" x W" x H"	Pricing 1	10	50
153736	EPC1053	5	3	12	7.5-16	9	0.25	100	12	1.2 x 0.7 x 0.5	$2.95	$2.49	$2.25
188904	AA10B048L150D	1	4	48	36-75	±15	0.30	75	5	2.0 x 1.0 x 0.4	19.95	17.95	17.95
185885	AA10B046L120DE	1	9	48	36-75	±12	0.375	75	6	2.0 x 1.0 x 0.4	13.99	12.59	12.59
188939	AA10B048L120DE	1	10	48	36-75	±12	0.375	60	6	2.0 x 1.0 x 0.4	14.95	13.49	13.49
109276	AA9090A	6	21	16	0-20	+5.1/+12.6/-26	3.75/0.1/.04	50/100/200	32	3.6 x 1.6 x 0.8	4.95	3.75	2.59
188226	AA40C048L050D	3	40	48	36-75	±5	4.0	120	10	3.0 x 3.0 x 0.5	19.95	17.95	17.95
188218	AK60A048L120F04G	2	50	48	36-75	12	4.0	150	8	2.4 x 2.3 x 0.5	22.95	19.95	19.95
188162	QBRB075NJ**	2	75	48	36-75	12	6.3	N/A	8	2.4 x 2.3 x 0.5	14.95	13.49	13.49
188138	AK60A048L120F08G	2	100	48	36-75	12	8.0	150	8	2.4 x 2.3 x 0.5	19.95	17.95	15.95
188154	AK60A048L150F07G	2	100	48	36-75	15	7.0	150	8	2.4 x 2.3 x 0.5	22.95	19.95	17.95
188146	AK60A048L240F04G	2	100	48	36-75	24	4.0	150	8	2.4 x 2.3 x 0.5	24.95	22.49	19.95
188947	AK60C048L120F08GP4	4	100	48	36-75	12	8.0	600	9	2.4 x 2.3 x 0.5	14.95	14.95	14.95
188197	AK60C048L050F20G	4	125	48	36-75	5	20	150	9	2.3 x 2.4 x 0.5	24.95	22.49	22.49
188200	BK60A048L120F13G	2	150	48	36-75	12	13	100	8	2.4 x 2.3 x 0.5	24.95	18.95	14.25

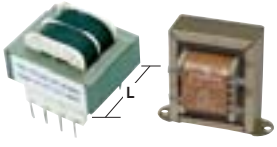
Part Number Color Code Legend: New · Sale · Refurbished · Closeout

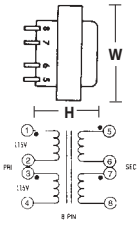
Part Number Color Code
New Sale Refurbished Closeout

Split-Bobbin Power Transformers

Non-concentrically wound with primaries and secondaries side-by-side providing low capacitive coupling.

• Primary: 115/230VAC, 50-60Hz • PC terminal pin spacing for accurate placement



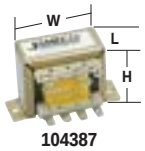


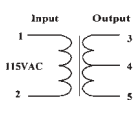
Part Number	Mfr. Cross Ref. No.	Triad Cross	Input Voltage	VA Cap	Individual Output	Parallel Output	Series Output	Dimensions L"	W"	H"	Wt. (lbs.)	Pricing 1	10	100
102517	XFR1602SB*	FS16150	115/230	2.4	8V @ .15A	8V @ .30A	16VCT @ .15A	1.17	1.38	1.20	0.3	$6.95	$6.25	$5.59
176090	SPT41240-120	FS24250	115/230	6.0	12V @ .25A	12V @ .50A	24VCT @ .25A	1.33	1.63	1.59	0.5	6.95	6.25	5.59
102533	XFR1205SB	FS12500	115/230	6.3	6.3V @ .50A	6.3V @ 1.0A	12.6VCT @ .50A	1.31	1.62	1.30	0.4	7.29	6.49	5.75
102592	XFR2405SB	FS24500	115/230	12.0	12V @ .50A	12V @ 1.0A	24VCT @ .50A	1.58	1.90	1.46	0.7	7.29	6.49	5.75
203318	P8616	—	115/230	24.0	24V @ .50A	24V @ 1.0A	48VCT @ .50A	1.96	2.25	2.70	1.5	6.95	6.25	5.59

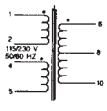
* Manufacturer and Product number may vary

Quick Connect Power Transformers

• Quick connect transformers are bobbin wound for smaller size and reduced electrostatic shielding requirements
• Terminals: quick connect, solder • Input voltage: 115/230VAC, 50-60Hz





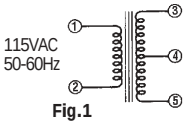


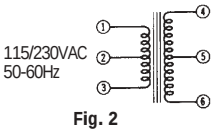
Part Number	Mfr. Cross Ref. No.	Triad Cross	Fig.	Input Voltage	Output Voltage	VA Cap	Size of Connect	Dimensions L"	W"	H"	Wt. (lbs.)	Pricing 1	10	100
164110	241-3-10	F310	1	115VAC	10VCT @ 0.25A	2.4	0.187"	.59	1.45	2.00	0.2	$3.95	$3.49	$2.95
104387	XFR1225Q	FD612	2	115/230VAC	12.6VCT @ 2.5A	31.5	0.187"	1.75	2.33	2.00	1.3	9.95	8.95	7.95
104408	XFR1635Q	FD716	2	115/230VAC	16VCT @ 3.5A	56.0	0.187"	2.00	2.70	2.30	1.8	10.95	9.85	8.89
101864	XFR2424Q	FD724	2	115/230VAC	24VCT @ 2.4A	57.6	0.187"	1.87	2.70	2.25	1.7	9.95	8.95	7.95
104416	XFR3615Q	FD736	2	115/230VAC	36VCT @ 1.5A	54.0	0.187"	1.90	2.70	2.30	1.8	8.95	7.99	7.25

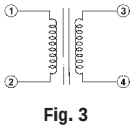
115VAC and 115/230VAC Power Transformers

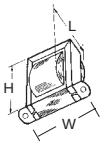
Power transformers have both single and dual voltage input and center tapped outputs. This makes them the perfect choice for power supply design or for use in transformer, rectifier, and filter circuits.

• Primary: 115VAC or 115/230VAC, 50-60Hz * Center tap











Part Number	Mfr. Cross Ref. No.	Triad Cross	Primary Voltage	Primary Color Code			Secondary Voltage	Secondary Color Code			Lead Type	Fig.	Dimensions L"	W"	H"	Wt. (lbs.)	Pricing 1	10	100
29225	XFR122	F44X	115VAC	Yellow	—	Yellow	12.6VCT @ 2A	Blue	Red*	Black	Wire	1	2.12	2.33	1.96	1.5	$8.95	$7.95	$6.95
102120	XFR124	F181U	115VAC	Black	—	Black	12.6VCT @ 4A	White	Black*	White	Wire	1	2.53	3.08	2.61	2.7	10.95	9.85	8.89
112512	XFR242N	F229X	115VAC	Black	—	Black	24VAC @ 2A	White	—	White	Wire	3	1.75	2.75	2.25	1.8	8.95	7.95	7.25
99653	XFR242	—	115VAC	Red	—	Red	24.6VCT @ 2A	Blue	Yellow*	Blue	Wire	1	2.44	2.70	2.30	2.5	8.95	7.95	7.25
102162	XFR6102	F314X	115/230VAC	Black	Yellow*	Red	6.3VCT @ 1.2A	White	Black*	White	Wire	2	1.56	1.96	1.67	0.8	6.95	6.25	5.59
105523	XFR0910	—	115/230VAC	Black	White*	Red	9VCT @ 1A	Blue	Black*	Blue	Wire	2	1.79	1.96	1.66	0.7	6.95	6.25	5.59
102154	XFR1220	F344X	115/230VAC	Black	Yellow*	Red	12.6VCT @ 2A	White	Black*	White	Wire	2	2.35	2.32	1.97	1.5	8.95	7.95	7.25
149770	XFR1240	F3181U	115/230VAC	Black	Red*	Yellow	12.6VCT @ 4A	White	Black*	White	Wire	2	2.45	2.70	2.24	2.2	10.95	9.95	8.95
105531	XFR1810	—	115/230VAC	Blue	Red*	Black	18VCT @ 1A	Yellow	Black*	Yellow	Wire	2	2.32	2.05	1.90	1.2	5.95	3.62	2.80
149956	XFR1820	—	115/230VAC	Black	Red*	Yellow	18VCT @ 2A	White	Black*	White	Wire	2	2.26	2.66	2.28	1.8	8.95	7.95	6.95
102111	XFR2410	F346X	115/230VAC	Black	Yellow*	Red	24VCT @ 1A	White	Black*	White	Wire	2	2.22	2.33	1.97	1.5	7.95	7.15	6.45
102103	XFR2520	F341X	115/230VAC	Black	White*	Red	25.2VCT @ 2A	Orange	Black*	Orange	Wire	2	2.45	2.67	2.26	2.8	12.95	11.65	10.49
149796	XFR2820	F3185U	115/230VAC	Black	Red*	Yellow	28VCT @ 2A	White	Black*	White	Wire	2	2.45	2.70	2.24	2.3	12.95	11.65	10.49

Current Sensing Transformers and Evaluation Boards

Class 1 Current Transformers

This series can be applied to test, control, display, and record the running of electrical equipment, and to protect the equipment against damage in the AC circuit.



• Maximum voltage: 660VAC
• Frequency: 50-60Hz
• Size: 3.0"L x 3.2"W x 1.6" thick • Weight: 1.1 lbs.
174887: Ratio 200A/5A; 5VA
174895: Ratio 400A/5A; 10VA

SALE

Includes: Mounting bracket and hardware

Part No.	Mfr. Cross Ref. No.	Power	1	10	100
174887	MSQ30	5VA	$4.25	$3.82	$3.44
174895	MSQ40	10VA	2.45	2.19	2.09

See page 57 for Voice/Data Coupling and Modem Coupling Transformers

10A Current Sensing Transformer

• Sensed current max.: 10A
• Sensitivity voltage (Vout): 1V
• Sensitivity current (Iin): 1A
• Frequency range: 20-50kHz
• Turns: 50 • Inductance: 50mH
• Terminating resistor: 50Ω
• Size: 0.77"L x 0.57"W x 0.75"H



Part No.	Product No.	1	10	100
154659	CS4050V	$.99	$.89	$.79

300mA Current Sensing Transformer



• Max. current: 300mA (terminals 1 & 3) • Turns: 60
• Sensitivity voltage (V_{out}): 1V
• Sensitivity current (I_{in}): 1A
• Freq. range: 10-50kHz • Terminating resistance: 50Ω
• Size: 0.8"H x 0.7"W x 0.4"T • Inductance: 5mH

Part No.	Mfr. Cross Ref. No.	1	10	100
164718	MTC30101	$1.75	$1.55	$1.39

IsoSense Inc. Evaluation Boards w/ Overcurrent Detector

These isolated detectors provide ultra fast stand alone overcurrent detection, ensuring fail safe operation for MOSFET, IGBT, and SCR based power circuits.

Specs for Overcurrent Detector:
• Supply voltage: 3.8 to 24VDC
• Supply current: 10mA maximum
• Operating temperature: -40˚C to 125˚C
• Output trip time: 1uS



181631: 50A evaluation board for easy in circuit evaluation
181649: 125A evaluation board for easy in circuit evaluation

SALE

Part No.	Iso Sense No.	1	10	100
181631	9001-050EVB	$13.85	$12.45	$11.19
181649	9001-125EVB	14.29	12.85	11.55

6VAC/9VAC Dual Output Power Transformer

12VA

SALE



- Input voltage: 120VAC
- **Output voltage: 6VAC @ 500mA center tap (blue wires); 9VAC @ 1A center tap (yellow wires)**
- Size: 2.1"L x 3.2"W x 2.0"H
- Weight: 1.3 lbs.

Part No.	Mfr. Cross Ref. No.	1	10	100
183089	YS57H-099FAA	$3.95	$3.59	$3.19

120VAC to 120VAC Isolated Transformer

300VA



- Input voltage: 120VAC @ 60Hz
- Input connector: 5.5' cord with 2-prong plug
- Output voltage: 120VAC @ 2.5A (isolated)
- Size: 4.2"H x 3.2"W x 4.6"D • Weight: 7.0 lbs.

Part No.	Mfr. Cross Ref. No.	1	10	100
181315	ITR300	$34.95	$31.49	$27.95

110VAC Variable AC Transformer

320VA



- Input voltage: 110VAC @ 60Hz (using pin 1-2) 110VAC @ 50Hz (using pin 1-4)
- Matching input/output terminals: P/N 103667 and 109111 (disconnect .25" solderless terminals), pg 85
- Maximum current: 2.5A • Panel mount
- Size: 2.8"Dia. x 2.1"H • Shaft length: 0.5"
- Weight: 2.5 lbs. • One-year warranty

Includes: 3 disconnect .25" solderless terminals

Part No.	Description	1	10	50
149323	320VA variable	$49.95	$44.95	$39.95

110VAC Variable AC Transformer

550VA

SALE



- Input voltage: 110VAC @ 60Hz
- Output voltage: 0-140VAC
- Rated current: 5A • Panel mount
- Input/output terminals: binding post with 0.188" diameter post
- Size: 4.3"Dia. x 4.0"H
- Weight: 6.8 lbs. • One-year warranty

Part No.	Description	1	10	50
152936	550VA variable	$69.95	$62.95	$56.95

AEEC 110VAC Variable AC Transformers



169640



169658

- Input voltage: 110VAC @ 60 Hz
- Power: 500 and 2000VA
- Output voltage: 0 to 130VAC
- Output analog voltmeter
- Input conn.: 3-prong plug w/ 5' cord
- Output conn.: 3-prong outlet type
- Lighted on/off power switch

169640: • 5A @ 250V fuse
- Size: 8.3"L x 6.5"W x 7.0"H
- Weight: 15.6 lbs.

169658: • 20A @ 250V fuse
- Size: 9.8"L x 8.0"W x 7.0"H
- Weight: 26.5 lbs.

Part No.	Description	1	10	50
169640	500VA transformer	$69.95	$62.95	$55.95
169658	2000VA transformer	119.95	109.95	99.95

110/220VAC Variable AC Transformers



121275

- Input: 110VAC or 220VAC
- Power: 500-2000VA
- Output: 0-240VAC
- Banana/screw input terminals
- Universal US/European output plugs
- Lighted on/off power switch

Part No.	Fuse	Size (L" x W" x H")	Wt. (lbs.)
121275	3A/250V (P/N 69438)	5.3 x 7.3 x 7.0	10.4
129007	5A/250V (P/N 10401)	9.4 x 6.5 x 7.7	14.8
152581	10A/250V (P/N 69462)	9.0 x 7.0 x 7.7	19.8

Part No.	Description	1	10	50
121275	500VA transformer ..	$79.95	$69.95	$62.95
129007	1000VA transformer	149.95	134.95	121.45
152581	2000VA transformer	174.95	158.45	139.95



Don't worry about backorders
Over 99% of our products are in stock!

We'll Send It Today!

Just place your order by 6PM EST
for same business day shipment

Power Entry Filters and AC Plug Connectors

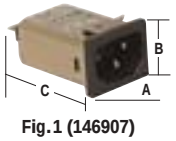


Fig.1 (146907)

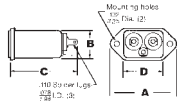


Fig. 2 (Solder Terminals)

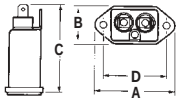


Fig. 3 (Fast-on Terminals)

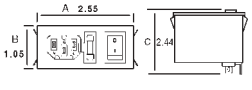


Fig. 4 (Cut out)



Fig. 5 (203140)

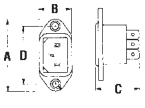


Fig. 6 (Male)

• Frequency: 50/60Hz



Fig. 2 (150615)

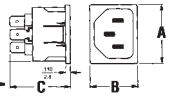


Fig. 7 (Female)

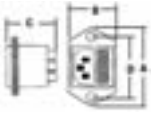


Fig. 8 (173770)

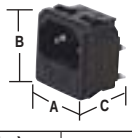


Fig. 9 (117444)

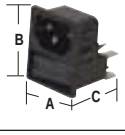


Fig. 10 (184903)

Part Number	Mfr. Cross Ref. No.	Corcom Cross	Description	Fig.	Current (Amps)	Voltage (VAC)	Terminals	Agency Approvals	Terminal Size	Dimension (inches) A	B	C	D	Pricing 1	10	100	500
146907	03DENG3B*		Power entry filter (snap-in)	1	3	250	fast-on	UL/CSA/VDE	.25"	1.25	0.95	2.23	N/A	$4.95	$4.49	$3.95	$3.59
150615	03AC1	3EF1	Power entry filter, straight (flanged)	2	3	250	solder	UL/CSA/VDE	.16"	1.89	0.88	2.58	1.58	5.95	5.35	4.79	4.29
42454	06AC1	6EF1	Power entry filter, straight (flanged)	2	6	250	solder	UL/CSA/VDE	.16"	1.96	0.88	2.06	1.58	6.95	6.25	5.59	4.95
165016	SUP-J15G-E-2		Power entry filter straight (flanged)	2	15	250	solder	UL/CSA/VDE	.16"	1.89	0.88	2.18	1.58	7.95	6.95	5.95	4.95
40601	03AE1*	3EF1F	Power entry filter, straight (flanged)	3	3	250	fast-on	UL/CSA/VDE	.25"	1.97	0.90	2.16	1.58	5.95	5.35	4.79	4.29
63132	06AE1	6EF1F	Power entry filter, straight (flanged)	3	6	250	fast-on	UL/CSA/VDE	.16"	1.96	0.88	2.06	1.58	7.95	6.95	6.25	5.59
167441	10AE1	10EF1F	Power entry filter, straight (flanged)	3	10	250	fast-on	UL/CSA	.25"	1.97	0.89	2.65	1.58	7.95	6.95	6.25	5.59
180620	A6-12S10E		Power entry filter, fused w/ switch (snap-in)	4	6	250	fast-on	UL/CSA/VDE	.25"	2.55	1.05	2.44	N/A	9.95	8.95	7.95	6.95
203140	F6-12S10E[1]		Power entry filter, fused w/ switch (snap-in)	5	6	250	fast-on	UL/CSA/VDE	.25"	2.55	1.05	2.82	N/A	11.95	10.95	9.95	8.95
147109	42R02		AC power inlet (male) snap-in	6	15	250	fast-on	UL/CSA/VDE	.25"	1.22	0.94	1.13	N/A	.49	.35	.25	.19
16651	JR101		AC power inlet (male) flanged	6	15	250	fast-on	UL/CSA/VDE	.187"	1.96	0.89	1.07	1.58	.59	.47	.35	.25
147900	P0707*		AC power inlet (male) flanged	6	15	250	solder	UL/CSA/VDE	.16"	1.96	0.89	1.04	1.58	.69	.59	.45	.39
174246	SC11		AC power outlet (female) flanged	7	15	250	fast-on	UL/CSA/VDE	.187"	.197	1.17	1.34	1.58	.79	.63	.47	.33
173770	6200-21		AC power inlet (male) fused (flanged)	8	10	250	fast-on	UL/CSA/VDE	.136"	1.73	1.34	1.00	1.41	.79	.65	.59	.49
117444	0717		AC power inlet (male) fused (snap-in)[2]	9	10	250	fast-on	UL/CSA/VDE	.187"	1.18	1.30	1.21	N/A	1.79	1.59	1.45	1.29
184903	42R363152IOU		AC power inlet (male) w/ switch (snap-in)	10	15	250	fast-on	UL/CSA/VDE	.25"	1.30	1.58	1.42	N/A	.99	.85	.69	.55

* Manufacturer may vary [1] High normal mode rejection [2] Includes spare fuse holder – Fuse type 5mm x 20mm (250V)

Part Number Color Code
New Sale Refurbished Closeout

- Molded connectors
- Excellent resistance to jacket abrasion
- Temperature: -20°C to +60°C
- Voltage rating: 300 volts

AWG	Volts	Amps	VA
18	125	10	1250
16	125	12	1500
14	125	15	1875

SALE


Line Cord (Fig. 1)


Configuration 8 Laptop Power Cord (Fig. 2)


Configuration D Laptop Power Cord (Fig. 3)


Power Cord w/ pigtail (Fig. 4)


160995 (Fig. 5)


184815 (Fig.6)


RFI Power Cord (Fig. 7)


Right Angle Computer Power Cord (Fig. 8)


Piggy-Backed Computer Power Cord (Fig. 9)


Power Supply Extension Cord (Fig. 10)


Monitor Power Adapter Cord (Fig. 11)


173892 (Fig. 12)


Hospital Grade Cord (Fig. 13)


173884 (Fig. 14)


Power Strip Saver (Fig. 15)


208346 (Fig. 16)

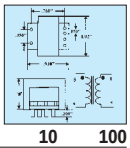
Part Number	Mfr. Cross Reference No.	Description	Weight (lbs.)	Agency Approvals	Plug Fig.	Length	Color	AWG	Cord Type*	Pricing 1	10	100	250
152186	17106BG	2-conductor power cord with pigtail	.20	UL/CSA	1	6'	Beige	18/2	SPT-2	**$.99**	**$.85**	**$.72**	**$.59**
124433	ST008	2-conductor power cord with pigtail	.16	UL/CSA	1	6'	Black	18/2	SPT-2	**1.15**	**.99**	**.89**	**.79**
42041	17106	2-conductor power cord with pigtail with strain relief	.25	UL/CSA	1	6'	Black	18/2	SPT-2	**1.15**	**.99**	**.89**	**.79**
146309	PC182J6	2-conductor power cord with pigtail (round)	.31	UL/CSA	1	6'	Black	18/2	SJT	**.75**	**.63**	**.55**	**.45**
189587	VW-1	2-conductor "8" style power cord for laptops and power supplies	.30	UL/CSA	2	6'	Black	18/2	SPT-2	**2.95**	**2.49**	**2.15**	**1.79**
200791	LL114039	2-conductor "D" style power cord for laptops and power supplies	.30	UL/CSA	3	6'	Black	18/2	SPT-2	**2.95**	**2.49**	**2.15**	**1.59**
38009	17237	3-conductor power cord with pigtail	.31	UL/CSA	4	6'	Gray	18/3	SVT	**2.49**	**2.25**	**1.95**	**1.75**
173809	17405	3-conductor power cord with pigtail	.39	UL/CSA	4	6'	Gray	18/3	SJT	**2.95**	**2.49**	**2.25**	**1.95**
37997	17236	3-conductor power cord with pigtail	.30	UL/CSA	4	6'	Black	18/3	SVT	**2.49**	**2.25**	**1.95**	**1.75**
159409	17405B	3-conductor power cord with pigtail	.37	UL/CSA	4	6'	Black	18/3	SJT	**2.95**	**2.49**	**2.25**	**1.95**
38025	17238	3-conductor power cord with pigtail	.39	UL/CSA	4	8'	Black	18/3	SVT	**2.95**	**2.49**	**2.25**	**1.95**
102007	17535B	3-conductor power cord with pigtail	.49	UL/CSA	4	10'	Black	18/3	SVT	**3.25**	**2.75**	**2.49**	**2.25**
196285	LL40378	3-conductor power cord with pigtail	.80	UL/CSA	4	10'	Black	16/3	SJT	**3.49**	**3.15**	**2.79**	**2.49**
166924	17516	3-conductor power cord with pigtail	.67	UL/CSA	4	6' 7"	Black	14/3	SJT	**3.95**	**3.55**	**3.19**	**2.79**
100271	17629B	3-conductor power cord with pigtail	.88	UL/CSA	4	9'	Black	14/3	SJT	**4.25**	**3.79**	**3.45**	**3.09**
160995	17720	3-conductor power cord with pigtail (shielded)	.44	UL/CSA	5	8'	Black	18/3	SVT	**2.95**	**2.49**	**2.25**	**1.95**
184815	17629BR	3-conductor right angle power cord with pigtail	.77	UL/CSA	6	7'	Black	14/3	SJT	**2.15**	**1.89**	**1.69**	**1.55**
103747	17248	3-conductor detachable power supply cord	.34	UL/CSA	7	6'	Gray	18/3	SVT	**3.49**	**3.15**	**2.79**	**2.49**
173542	17660GY	3-conductor detachable power supply cord (shielded)	.42	UL/CSA	7	6'	Gray	18/3	SVT	**2.99**	**2.69**	**2.42**	**2.18**
38041	17249	3-conductor detachable power supply cord	.37	UL/CSA	7	6'	Beige	18/3	SVT	**3.49**	**3.15**	**2.79**	**2.49**
38050	17250	3-conductor detachable power supply cord	.36	UL/CSA	7	6'	Black	18/3	SVT	**3.95**	**3.35**	**2.75**	**2.25**
161761	17742	3-conductor detachable power supply cord (shielded)	.40	UL/CSA	7	6'	Black	18/3	SVT	**3.75**	**3.25**	**2.59**	**2.19**
132118	17500	3-conductor detachable power supply cord	.44	UL/CSA	7	6'	Black	18/3	SJT	**4.25**	**3.79**	**3.45**	**3.09**
117583	17502	3-conductor detachable power supply cord	.37	UL/CSA	7	8'	Gray	18/3	SVT	**3.49**	**3.15**	**2.79**	**2.49**
171096	17758	3-conductor detachable power supply cord	.60	UL/CSA	7	8'	Black	18/3	SJT	**3.95**	**3.55**	**3.19**	**2.89**
102023	17501V	3-conductor detachable power supply cord	.55	UL/CSA	7	10'	Black	18/3	SVT	**3.95**	**3.55**	**3.19**	**2.89**
192727	17501J	3-conductor detachable power supply cord	.64	UL/CSA	7	10'	Black	18/3	SJT	**3.95**	**3.19**	**2.39**	**1.79**
190625	37805	3-conductor detachable power supply cord (shielded)	.75	UL/CSA	7	10'	Beige	18/3	SJT	**3.95**	**3.19**	**2.39**	**1.79**
163361	6952299	3-conductor detachable power supply cord	.33	UL/CSA	7	14'	Black	18/3	SJT	**4.95**	**4.49**	**3.95**	**3.49**
159361	17602	3-conductor detachable power supply cord	.57	UL/CSA	7	6'	Black	16/3	SJT	**3.49**	**3.15**	**2.79**	**2.49**
142607	17502	3-conductor detachable power supply cord (shielded)	.63	UL/CSA	7	6'	Black	16/3	SJT	**3.95**	**3.55**	**3.19**	**2.89**
125541	17504	3-conductor detachable power supply cord	.71	UL/CSA	7	6' 7"	Black	14/3	SJT	**4.95**	**4.49**	**3.95**	**3.49**
117356	8120-6177	3-conductor detachable right angle power supply cord	.41	UL/CSA	8	6'	Gray	18/3	SVT	**3.95**	**3.19**	**2.39**	**1.69**
38076	17250R	3-conductor detachable right angle power supply cord	.54	UL/CSA	8	6'	Black	18/3	SVT	**3.49**	**3.15**	**2.79**	**2.49**
173251	1725ORS	3-conductor detachable right angle power supply cord (shielded)	.40	UL/CSA	8	6'	Black	18/3	SVT	**2.95**	**2.65**	**2.39**	**2.15**
177383	17507	3-conductor detachable right angle power supply cord	.66	UL/CSA	8	10'	Black	18/3	SJT	**3.95**	**3.19**	**2.39**	**1.79**
84937	17669-6	3-conductor detachable piggy backed computer power cord	.47	UL/CSA	9	6'	Black	18/3	SJT	**5.95**	**5.35**	**4.79**	**4.29**
28468	PEC	3-conductor computer power supply extension cord	.36	UL/CSA	10	6'	Black	18/3	SVT	**3.49**	**3.15**	**2.79**	**2.49**
121291	PEC2	3-conductor computer power supply extension cord	.55	UL/CSA	10	8'	Black	18/3	SJT	**3.95**	**3.19**	**2.39**	**1.79**
175855	PECUL10	3-conductor computer power supply extension cord	.53	UL/CSA	10	10'	Black	18/3	SVT	**2.49**	**2.25**	**1.95**	**1.75**
177447	MPC1	3-conductor monitor power adapter cord	.16	UL/CSA	11	1'	Black	18/3	SVT	**2.95**	**2.49**	**2.15**	**1.79**
26382	MPC6	3-conductor monitor power adapter cord	.40	UL/CSA	11	6'	Black	18/3	SVT	**3.19**	**2.79**	**2.49**	**2.29**
173892	34J88T-1	3-conductor power cord w/ pigtail hospital grade (green dot)	.65	UL/CSA	12	8'	Black	18/3	SJT	**1.25**	**.95**	**.90**	**.85**
196277	E55333	3-conductor power cord w/ hospital grade male (green dot)	.56	UL/CSA	13	6' 6"	Gray	18/3	SJT	**3.49**	**2.79**	**2.35**	**1.95**
132011	17006G	3-conductor power cord w/ hospital grade male (green dot)	.82	UL/CSA	13	10'	Gray	16/3	SJT	**7.95**	**6.95**	**6.25**	**5.59**
115078	17006	3-conductor power cord w/ hospital grade male (green dot)	.84	UL/CSA	13	10'	Black	16/3	SJT	**7.95**	**6.95**	**6.25**	**5.59**
173884	3472WJ698G	3-conductor power cord w/ hospital grade male rt ang (green dot)	.85	UL/CSA	14	9'	Gray	16/3	SJT	**7.95**	**6.95**	**6.25**	**5.59**
199777	PSS-1	3-conductor power cord (power strip saver)	.16	UL/CSA	15	1'	Black	18/3	SVT	**1.69**	**1.55**	**1.35**	**1.35**
208338	SY0527BG	3-conductor power cord (power strip saver)	.16	UL/CSA	15	1'	Beige	18/3	SVT	**1.69**	**1.55**	**1.35**	**1.35**
208346	GPR-2006	3-conductor power cord ("Y" type power strip saver)	.38	UL/CSA	16	2'	Black	18/3	SVT	**2.89**	**2.75**	**2.59**	**2.59**

Thermoplastic Cord Jacket Type: SPT-1 (Flat): Light duty; SPT-2 (Flat): Junior duty; SVT (Round): Light service; SJT (Round): Junior service

Voice/Data Coupling Transformer

- Pri./Sec. impedance: 600Ω
- Turns ratio: ±2%
- Resistance (Pri./Sec.): 63Ω/88Ω
- Frequency response: 300-3500Hz (±0.5dB)

PREM



SALE

Part No.	Product No.	1	10	100
164128	SPT115	$.84	$.76	$.68

International 50-Watt Plug-In Step-Down Wall Transformer

Converts foreign 220/240VAC to 110/120VAC. Built-in input plugs for Europe/Middle East; England/Africa and Australia/Philippines outlets.



RCA

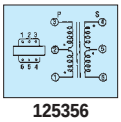
- Input voltage: 220/240VAC
- Output voltage: 110/120VAC
- Input selectable prongs for applicable countries • LED status indicator
- 2-prong flat or round receptacle compatible
- Size: 4.4"H x 2.0"W x 2.0"D • Weight: 1.0 lb.

Part No.	Description	1	10	25
191783	International trans.	$12.95	$11.49	$9.95

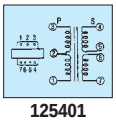
Modem Coupling Transformers

- Insulation resistance: 100MΩ
- Vacuum wax impregnated
- ±20% impedance matching
- Core type: EI-14
- Hipot tested: 100VAC
- ±20% DC resistance matching





125356

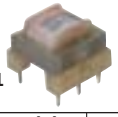


125401

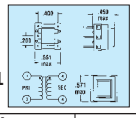
Part No.	Mfr. Cross Reference No.	Impedance (Ω) Primary	Impedance (Ω) Secondary	Resistance (Ω) Primary	Resistance (Ω) Secondary	Pricing 1	Pricing 10	Pricing 100
125356	XFR6006A14	600CT	600CT	65	55	$1.35	$1.22	$1.09
125401	XFR60066A14	600CT	600/600	72	56/56	1.39	1.25	1.09
205962	60-282-0	1.2KCT	8	45	1.5	1.34	1.21	.99

Modem Coupling Transformers

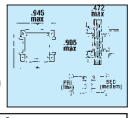
- Dielectric strength: 1250VAC



141621



141621



117760

Part Number	Mfr. Cross Ref. No.	Impedance (Ω) Primary	Impedance (Ω) Secondary	Resistance (Ω) Primary	Resistance (Ω) Secondary	Insertion Loss	Pricing 1	Pricing 10	Pricing 100
141621	671-8255	600	600	46.5	67.6	1.25dB @ 1kHz	$1.95	$1.75	$1.49
199540	671-8079	600	301	150	150	3.00dB @ 1kHz	2.25	1.95	1.75
117760	671-8014	600	600	108	120	2.50dB @ 1kHz	2.15	1.95	1.75
206391	TTC-105	600	600	71	117	2.50dB max. @ 800Hz to 3.5kHz	2.95	2.59	1.95

See pages 54 & 55 for Power Transformers, Current Sensing Transformers and Variable Transformers

International Step-Up/Step-Down Transformers

- Wide selection to meet your power requirements



Fig. 1



Fig. 2



Fig. 3



Fig. A Plug



Fig. B Plug



Output Plug

Part Number	Mfr. Cross Ref. No.*	Fig.	Primary Voltage	Secondary Voltage	Power (VA)	Dimensions H"	Dimensions W"	Dimensions D"	Weight (lbs.)	Pricing 1	Pricing 10	Pricing 100
99573	AC110V50	1/A	220VAC	110VAC	50	2.50	1.63	1.33	0.7	$7.69	$6.95	$6.25
85016	AC110V300	3/A	220VAC	110VAC	300	3.50	3.05	3.95	4.8	27.95	24.95	22.49
111851	AC110V500	2/A	220VAC	110VAC	500	3.99	3.60	4.84	8.5	34.95	31.49	28.95
142906	AC110V1500	2/A	220VAC	110VAC	1500	5.25	4.50	5.75	15.2	79.95	71.95	64.95
99477	AC220V50	1/B	110VAC	220VAC	50	2.50	1.63	1.33	0.7	7.69	6.95	6.25
85008	AC220V300	3/B	110VAC	220VAC	300	3.50	3.05	3.95	4.8	27.95	24.95	22.49

* Manufacturer may vary

International Power Cords

- 3-conductor detachable power cords
- Voltage rating: 300 volts
- Excellent resistance to jacket abrasion
- BSI: British Standard Institution

Cord Configuration Chart – End 1



SALE

Cord Configuration Chart – End 2



117911 (Fig. 1)



173841 (Fig. 2)



174633 (Fig. 3)



177341 (Fig. 4)

Part Number	Mfr. Cross Reference No.*	Country	Agency Approvals	Cord Plug Fig. End 1	Cord Plug Fig. End 2	Length	Cord Color	Conductors	Cord Type	Pricing 1	Pricing 10	Pricing 100	Pricing 250
117911	PCVDE-6B	Europe	All in Fig. 5	A	1	6 ft.	Black	3/.75mm²	H05VVF	$4.95	$4.49	$3.95	$3.55
138270	H05VVF	Europe	All in Fig. 5	A	1	6 ft.	Beige	3/1.0mm²	H05VVF/HAR	4.49	3.95	3.69	3.39
173841	2271H376G	Europe	All in Fig. 5	A	2	6 ft.	Gray	3/.75mm²	H03VVF	1.49	1.25	.99	.75
173850	2271H518G	Europe	All in Fig. 5	A	2	8 ft.	Gray	3/1.0mm²	H05VVF	1.75	1.49	1.25	.99
177341	86559011	India/Africa	VDE	A	4	9 ft.	Black	3/1.0mm²	HAR	3.95	3.19	2.39	1.69
184891	WS-012A	UK/Ireland	BSI	A	3	6 ft.	Black	3/1.0mm²	H05VVF	1.95	1.75	1.49	1.25
174633	21071H5182	UK/Ireland	BSI	A	3	8 ft.	Black	3/1.0mm²	H05VVF	8.95	7.95	6.95	6.25

* Manufacturer may vary

European Agency Approvals

Germany	VDE	VDE
Austria	OVE	OVE
Belgium	CEBEC	CEBEC
Denmark	DEMKO	D
Finland	FIMKO	FI
France	LCIE	LCIE
Netherlands	KEMA	KEMA KEUR
Norway	NEMKO	N
Sweden	SEMKO	S
Switzerland	SEV	SEV

Fig. 5

Table-Top Transformers



176604

AC/AC Table-Top Step-Down Transformers

SALE

- Input voltage: 120VAC @ 60Hz
- Attached AC cord

Part Number	Mfr. Cross Reference No.*	Output Volts (VAC)	Output Current (A)	Output Watts (W)	Output Plug ID x OD Plug Type	Power Indicator	Color	Size (L" x W" x H")	Cord (AC/AC)	Wt. (lbs.)	Agency Approvals	Pricing 1	Pricing 10	Pricing 50	Pricing 100
196197	4182	10	1.0	10	2.1mm x 5.5mm female	No	Black	3.3 x 2.3 x 1.8	4'/6'	1.5	UL	$4.95	$4.49	$3.95	$3.49
147310	0931RB	24	0.70	17	3-pin (0.156") female housing	No	Black	3.2 x 2.2 x 1.9	6'/6'	1.1	UL	2.69	2.45	2.19	1.95
152135	100380-001	24	1.46	35	2.1mm x 5.5mm female	No	Black	3.6 x 2.7 x 2.1	3'5"/5'6"	1.9	UL/CSA	5.49	4.95	4.49	3.95
176604	TA661640	16	4.0	64	2.1mm x 5.5mm female	No	Black	3.7 x 2.9 x 2.5	6'/6'	2.8	CSA	12.95	11.49	9.95	8.95

* Manufacturer may vary

Part Number Color Code: New Sale Refurbished Closeout

AC/DC Table-Top Power Supplies

NEW

- Regulated and unregulated outputs (see output plug)
- Input voltage: 100-240VAC @ 50-60Hz

Polarity 1 (center negative)

Polarity 2 (center positive)



Power cords – see below



Stripped DIN Male Female



136565



155213



139096

Part Number	Mfr. Cross Reference No. ▲	Output Volts (VDC)	Output Current (A)	Output Watts (W)	Output Plug ID x OD/Plug Type/Polarity	Power Indicator	Color	Size (L" x W" x H")	Cord* (DC/AC)	Wt. (lbs.)	Agency Approvals	Pricing 1	Pricing 10	Pricing 50	Pricing 100
196218	GT210891005T3	5	2.0	10	2.1mm x 5.5mm female **2** **(regulated)**	No	Black	3.4 x 1.9 x 1.3	6'/ [1]	0.4	UL/CSA/TUV/CE	$15.95	$12.95	$9.59	$6.95
161568	MA15-050R	5	2.5	15	2.1mm x 5.5mm female **2** **(regulated)**	No	Black	3.3 x 2.0 x 1.3	4'/6'	0.4	UL/CSA/TUV	22.95	20.95	18.95	16.95
202796	MA15-2.5R	5	2.5	15	2.5mm x 5.5mm female **2** **(regulated)**	No	Black	3.3 x 2.0 x 1.3	4'/6'	0.4	UL/CSA/TUV	19.95	17.95	15.95	13.95
206236	A15D3-05MP	5	3.0	15	2.5mm x 5.5mm female **2** **(regulated)**	No	Black	3.8 x 2.1 x 1.4	5'/ [1]	0.4	UL/CSA/TUV	24.95	19.95	14.95	11.95
155205	KA52A	5	4.0	20	2.1mm x 5.5mm female **2** **(regulated)**	No	Black	4.1 x 2.6 x 1.6	6'/6'	1.2	UL/CSA/TUV	29.95	26.95	24.95	22.95
169121	AD740U1050	5	4.0	20	2.5mm x 5.5mm female **2** **(regulated)**	No	Black	4.1 x 2.6 x 1.6	4'/ [1]	1.4	UL/CUL/TUV/CE	27.95	24.95	22.49	19.95
190051	APS48EA114	7	1.5	10	2.5mm x 5.5mm female **2**	No	Black	3.4 x 2.3 x 1.9	6'/6'	1.9	UL/CUL	9.95	7.95	5.95	4.25
206527	P40A-1-1P25	7	4.0	30	2.1mm x 5.5mm female **2** **(regulated)**	No	Black	4.3 x 2.7 x 1.5	6'/6'	1.5	UL/CUL/TUV/CE	29.95	26.95	23.95	21.95
170341	UP02511091	9	0.3	3	2.1mm x 5.5mm female **2** **(regulated)**	No	Black	4.3 x 2.7 x 1.5	6'/ [1]	0.6	UL/CSA/TUV	12.95	11.49	10.49	9.49
195805	DCR920F12	9	2.0	18	2.1mm x 5.5mm female **2** **(regulated)**	Yes	Black	4.2 x 2.6 x 1.4	6'/6'	0.9	UL/CUL/TUV/CE	24.95	22.49	19.95	17.95
195768	DCR920F52	9	2.0	18	2.5mm x 5.5mm female **2** **(regulated)**	Yes	Black	4.3 x 2.6 x 1.4	6'/6'	0.9	UL/CUL/TUV/CE	24.95	22.49	19.95	17.95
203182	A71222D	11.5	2.2	25	2.1mm x 5.5mm female **1**	No	Black	4.1 x 2.8 x 2.2	6'/6'	2.0	UL/CSA	12.95	11.49	10.49	9.49
136565	DDC1210P†	12	1.0	12	Stripped & Tinned	No	Black	3.2 x 2.2 x 1.9	6'/6'	1.2	—	9.95	8.95	7.95	6.95
161576	MA15-120R	12	1.25	15	2.1mm x 5.5mm female **2** **(regulated)**	No	Black	3.3 x 2.0 x 1.3	4'/6'	0.4	UL/CSA/TUV	24.95	22.49	19.95	17.95
140880	DC1215ST†	12	1.5	18	Stripped & Tinned	No	Black	3.1 x 2.1 x 1.9	6'/6'	1.5	UL	10.95	9.95	8.95	7.95
157956	PS571812D†	12	1.5	18	2.5mm x 5.5mm female **2**	No	Black	3.4 x 2.7 x 2.2	6'/6'	2.0	UL	10.95	9.95	8.95	7.95
183054	SPU24-3	12	1.5	18	2.5mm x 5.5mm female **2** **(regulated)**	Yes	Black	4.2 x 2.6 x 1.2	6'/ [1]	0.5	UL/CUL/TUV/CE	21.95	19.95	16.95	15.49
143714	DC1220F1†	12	2.0	24	2.1mm x 5.5mm female **2**	No	Black	3.8 x 2.8 x 2.3	6'/6'	2.2	—	12.95	11.49	10.49	9.49
143722	DC1220F5†	12	2.0	24	2.5mm x 5.5mm female **2**	No	Black	3.8 x 2.8 x 2.3	6'/6'	2.2	—	12.95	11.49	10.49	9.49
143731	DC1220M3†	12	2.0	24	3.5mm male **2**	No	Black	3.8 x 2.8 x 2.3	6'/6'	1.9	—	12.95	11.49	10.49	9.49
203086	SW110	12	2.08	25	2.5mm x 5.5mm female **2** **(regulated)**	No	Black	5.1 x 3.1 x 1.6	6'/ [1]	2.0	UL/CSA/CE	24.95	22.49	19.95	17.95
191142	DC1225F1	12	2.5	30	2.1mm x 5.5mm female **2** **(regulated)**	No	Black	3.7 x 2.2 x 1.2	6'/ [2]	2.0	UL/CSA/TUV	24.95	19.95	17.95	15.95
191901	CUP36-12	12	2.5	30	2.5mm x 5.5mm rt angle fem **2** **(regul)**	No	Black	4.4 x 2.0 x 0.8	4'/ [2]	0.7	UL/CSA/TUV/CE	27.95	24.95	22.49	19.95
196200	UP0351A-12P	12	3.0	36	2.1mm x 5.5mm female **2** **(regulated)**	Yes	Dk. gray	5.5 x 2.7 x 1.5	6'/ [1]	1.0	UL/CSA/TUV/CE	29.95	26.95	24.95	22.95
155213	P40A-3P2JU	12	3.3	40	2.1mm x 5.5mm female **2** **(regulated)**	Yes	Black	5.5 x 2.3 x 1.5	6'/6'	0.7	UL/CUL/TUV	34.95	31.49	27.95	24.95
203107	UP0451E-12P	12	3.75	45	2.5mm x 5.5mm female **2** **(regulated)**	No	Black	4.7 x 2.4 x 1.4	2'6"/ [1]	1.4	UL/CSA/TUV/CE	34.95	31.49	27.95	24.95
203094	UP0551A-12PD1	12	4.0	48	2.5mm x 5.5mm female **2** **(regulated)**	No	Black	5.6 x 2.8 x 1.5	6'/ [1]	1.9	UL/CSA/TUV/CE	39.95	35.95	32.95	29.95
155230	SPU50-3	12	5.0	60	2.1mm x 5.5mm female **2** **(regulated)**	Yes	Black	5.6 x 2.9 x 1.5	6'/6'	1.3	UL/CSA/TUV	49.95	44.95	39.95	35.95
189659	STLN4123B†	14	0.83	11	2.1mm x 5.5mm female **2**	No	Beige	3.4 x 2.5 x 2.1	8'6"/6'	1.8	UL/CUL	9.95	8.95	7.95	6.95
174975	SPU24-4	15	1.6	22	2.1mm x 5.5mm female **2** **(regulated)**	Yes	Black	4.1 x 2.5 x 1.2	6'/6'	0.6	UL/CSA/TUV/CE	29.95	26.95	24.95	22.95
189739	PSA-152	15	2.0	30	2.5mm x 5.5mm female **2**	No	Black	5.8 x 2.9 x 1.6	3'/ [1]	1.6	UL/CSA/CE	14.95	13.49	11.95	10.95
173593	UPS30215P**	15	2.0	30	2.5mm x 5.5mm female **2** **(regulated)**	Switch	Black	6.8 x 4.3 x 2.2	6'/ [1]	1.2	UL/CSA/TUV	27.95	24.95	22.95	20.95
206471	P40A4AR01	15	2.0	30	2.5mm x 5.5mm female **2** **(regulated)**	No	Black	5.6 x 2.9 x 1.6	6'/6'	1.2	UL/CSA/TUV/CE	29.95	26.95	24.95	22.95
206455	SC100	16	1.56	25	2.5mm x 5.5mm female **2** **(regulated)**	No	Black	4.2 x 2.6 x 1.5	6'/ [1]	1.2	UL/CSA/TUV/CE	19.95	15.95	11.95	8.95
191898	A81807DM+	18	0.7	12.6	2.1mm x 5.5mm female **1**	No	Black	4.2 x 3.1 x 2.5	6'/6'	2.6	—	9.95	7.95	5.95	4.49
196306	A51813D†	18	1.3	23	2.1mm x 5.5mm female **2**	No	Black	3.6 x 2.4 x 2.0	6'/6'	1.8	UL/CSA	12.95	11.49	10.49	9.49
203457	ZVC30-18-D	18	1.7	30	2.5mm x 5.5mm rt angle fem **2** **(regul)**	No	Black	4.2 x 1.7 x 1.0	39"/ [2]	0.4	UL/CSA/CE	24.95	22.49	19.95	17.95
203465	ZVC36-18-D	18	2.0	36	2.5mm x 5.5mm rt angle fem **2** **(regul)**	No	Black	4.2 x 1.7 x 1.0	39"/ [2]	0.4	UL/CSA/CE	29.95	26.95	24.95	22.95
174983	SPU41-5	18	2.2	40	2.1mm x 5.5mm female **2** **(regulated)**	Yes	Black	5.6 x 2.9 x 1.6	6'/6'	1.1	UL/CUL/TUV/CE	39.95	35.95	32.95	29.95
203473	ZVC45LT19E	19	2.36	45	2.5mm x 5.5mm rt angle fem **2** **(regul)**	No	Black	4.2 x 1.7 x 1.0	39"/ [2]	0.4	UL/CSA/CE	39.95	35.95	32.95	29.95
203481	ZVC65NT19E	19	3.42	65	2.5mm x 5.5mm rt angle fem **2** **(regul)**	No	Black	4.5 x 2.4 x 1.2	39"/ [2]	0.5	UL/CSA/CE	49.95	44.95	39.95	35.95
196947	SCP60-201500	20	1.5	30	2.1mm x 5.5mm female **2**	No	Black	3.8 x 2.8 x 2.3	6'/6'	1.2	UL/CUL	14.95	11.95	8.95	6.79
169076	808050-00	20	2.5	50	2.5mm x 5.5mm female **2** **(regulated)**	Yes	Black	6.7 x 3.3 x 2.3	6'/ [1]	1.4	UL/CSA/TUV	24.95	19.95	14.95	11.95
174844	DCR2410F12†	24	1.0	24	2.1mm x 5.5mm female **2** **(regulated)**	No	Black	4.4 x 3.0 x 2.5	6'/6'	2.6	—	14.95	13.49	11.95	10.95
174852	DCR2410F52†	24	1.0	24	2.5mm x 5.5mm female **2** **(regulated)**	No	Black	4.4 x 3.0 x 2.5	6'/6'	2.7	—	14.95	12.95	10.95	9.95
139096	DC2412F1†	24	1.2	29	2.1mm x 5.5mm female **2**	No	Black	4.4 x 3.1 x 2.6	6'/6'	2.5	—	12.95	11.49	10.49	9.49
181884	P40A6P2J	24	1.66	40	2.1mm x 5.5mm female **2** **(regulated)**	Yes	Black	4.1 x 2.6 x 1.4	6'/6'	0.7	UL/TUV/CE	32.95	29.95	27.95	24.95
161605	SPU50-6	24	2.5	60	2.1mm x 5.5mm female **2** **(regulated)**	Yes	Black	5.6 x 2.9 x 1.6	1'9"/6'	1.3	UL/CSA/TUV	44.95	39.95	35.95	32.95
173665	DND-3005†	30	0.5	15	2.5mm x 5.5mm female **2** **(regulated)**	No	Black	8.3 x 2.5 x 2.2	5'9"/3'2"	1.4	UL/CUL	10.95	9.95	8.95	7.95
205911	ADP-25HB	30	0.83	25	2.1mm x 5.5mm female **2** **(regulated)**	No	Black	3.5 x 2.4 x 1.2	6'/7'	1.1	UL/CUL	14.95	13.49	11.95	10.49
205920	DND-3012	30	1.0	30	2.5mm x 5.5mm female **2**	No	Black	4.0 x 2.9 x 2.5	6'/6'	1.7	UL/CUL	12.95	11.49	10.49	9.49
203772	SC100	48	0.52	25	2.5mm x 5.5mm female **2** **(regulated)**	No	Black	4.2 x 2.6 x 1.5	6'/ [2]	0.8	UL/CSA/TUV/CE	19.95	17.95	15.95	14.49
172064	SPU50-9	48	1.25	50	2.1mm x 5.5mm female **2** **(regulated)**	Yes	Black	5.6 x 2.9 x 1.7	6'/6'	1.3	UL/CSA/TUV	49.95	44.95	39.95	35.95

† 120VAC input only * See accessory table-top power cord chart below when AC cord needed ** Has on/off switch ▲ Manufacturer may vary

See photos on next page

Accessory Power Input Cords for Table-Top Power Supplies

See page 57 for International Power Cords

*** Note:** Required to operate above power supplies. The reference number for appropriate power cord is listed in the Cord (DC/AC) column above

Part Number	Reference Number *	Description	Color	AWG	Cord Type	Cord Length	Weight (lbs.)	Agency Approvals	Pricing 1	Pricing 10	Pricing 100
38050	1	3-conductor detachable power supply cord	Black	18/3	SVT	6'	0.4	UL/CSA	$3.95	$3.35	$2.75
189587	2	2-conductor detachable power cord for laptops and P/Ns 189245/191901/191142	Black	18/2	SPT	6'	0.3	UL/CSA	2.95	2.49	2.15

MOTOROLA 5.6-Watt Linear Wall Regulated DC Power Supply

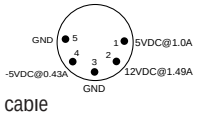


- **Output voltage:**
  +5VDC @ 500mA
  +12VDC @ 130mA
  -12VDC @ 130mA
- Input voltage: 120VAC @ 60Hz
- Input conn.: 3-prong AC wall plug

Part No.	Product No.	1	10	50	100
154624	5712-305-4C3E	$9.95	$7.95	$5.95	$4.49

DVE 23-Watt Table-Top Switching DC Power Supply



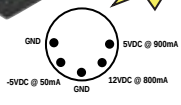


- **Output voltage:**
  +5VDC @ 1.0A
  +12VDC @ 1.49A
  -5VDC @ 0.43A
- Input voltage:
  100-240VAC @ 47-63Hz
- Input connector: 2-prong input power receptacle
- Output connector: male 5-pin DIN connector with 6' cable

Part No.	Product No.	1	10	50	100
196138	DSA-0283A	$19.95	$15.95	$11.95	$8.95

ARTESYN 14-Watt Table-Top Switching Power Supply



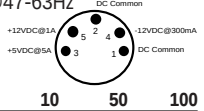


- **Output voltage:**
  5VDC @ 900mA
  12VDC @ 800mA
  -5VDC @ 50mA
- Input voltage:
  100-240VAC @ 50-60Hz
- Input connector: 2-prong input power receptacle

Part No.	Product No.	1	10	50	100
196146	JE9100	$11.95	$9.59	$7.19	$4.95

MEAN WELL 40.6-Watt Table-Top Regulated DC Power Supply





- **Output voltage:**
  +5VDC @ 5A
  +12VDC @ 1A
  -12VDC @ 0.3A
- Input voltage: 100/240VAC@47-63Hz
- Input: 6' power cord (incl.)
- Mating output conn.: female 5-pin DIN, P/N 15843, pg 85

Part No.	Product No.	1	10	50	100
155053	SPU41-13D1	$49.95	$44.95	$39.95	$35.95

ACI WORLD 18-Watt Wall Unregulated Power Supply



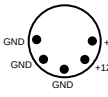


- **Output voltage:**
  +12VDC @ 1500mA
- Input voltage:
  120VAC @ 60Hz
- Input connector:
  2-prong wall plug
- Output connector:
  8-pin mini DIN with 3'4" cable

Part No.	Product No.	1	10	50	100
189211	57-12-15000	$4.95	$3.95	$2.95	$2.25

ELPAC 72-Watt Table-Top Switching Power Supply





- **Output voltage:**
  +12VDC @ 6A
- Input voltage:
  95-250VDC @ 47-63Hz
- Input: 6' power cord (included)
- Mating output connector:
  5-pin DIN female connector, P/N 180873, pg 85

Part No.	Product No.	1	10	50	100
182959	W7212	$49.95	$44.95	$39.95	$35.95

Check Out Our Complete Line of Wall-Mount and Table-Top Power Supplies

NEW

Part Number	Mfr. ▲	Product Number ▲	Watts (W)	Output (VDC/A)	Input (VAC @ Hz)	Input Connector/Cord**	Output Connector/Cord	Certification	Size L" x W" x H"	Wt. (lbs.)	Type/Color	Mode †	Pricing 1	10	50	100
163969	Gatron	AH633N	3.75	+5/0.75	120 @ 60	3-prong/6' cord	4-pin mini DIN M/5'9"	UL/CSA	4.1 x 2.5 x 2.0	1.5	Table/Black	S	$1.95	$1.75	$1.49	$1.25
116089	Atari	C070042	5.0	+5/1	115 @ 60	2-prong/6' cord	7-pin DIN M/6'	UL	3.4 x 2.7 x 2.3	1.6	Table/Black	L	6.95	6.25	5.59	4.99
154624	Motorola*	5712-305-4C3E	5.6	+5/0.5, +12/0.13, -12/0.13	120 @ 60	3-prong wall plug	8-pin mini DIN M/6'	UL/CSA	2.9 x 2.6 x 1.9	1.2	Wall/Black	L	9.95	7.95	5.95	4.49
147467	Atari	PS32	6.1	+5/0.72, +12/0.21	117 @ 60	2-prong/6' cord	5-pin DIN F/6'	UL/CSA	4.8 x 3.3 x 3.2	2.6	Table/Black	L	2.49	2.25	1.99	1.79
153752	Skynet	LVT-T022	8.0	+5/1.5, -5/0.1	115/230 @ 50-60	3-prong recep./ 2	5-pin mini DIN M/6'	UL/CSA/TUV	5.5 x 2.9 x 1.5	1.1	Table/Black	S	12.95	11.49	9.95	8.95
103173	Jameco	JE9100	9.0	+5/0.6, +12/0.25, -12/0.25	120 @ 50-60	2-prong/6' cord	5-pin DIN M/6'	UL/CSA	4.8 x 3.1 x 2.5	2.3	Table/Black	L	17.95	15.95	13.95	11.95
155651	Globtek	TR2V100MD8	12.2	+5/1, +12/0.3, -12/0.3	120 @ 60	3-prong/6' cord	8-pin mini DIN M/6'	UL	4.5 x 3.0 x 2.5	2.6	Table/Black	L	17.95	14.49	10.75	7.55
203511	LZR	AD1590	13.5	+15/0.9	120 @ 60	2-prong wall plug	6-pin mini DIN M/6'	UL/CSA	2.6 x 2.3 x 1.9	1.0	Wall/Black	U	7.95	6.95	6.25	5.59
196146	Artesyn*	SSL20-7660	14.0	+5/0.9, +12/0.8 -5/0.5	100-240 @ 50-60	2-prong recep./ 3	5-pin DIN M/6'	UL/CSA/VDE	4.2 x 2.3 x 1.0	1.0	Table/Black	S	11.95	9.59	7.19	4.95
203596	Elpac	WM150	15.0	+5/3	120 @ 60	3-prong/6' cord	5-pin DIN M/6'	UL/CSA	5.4 x 3.9 x 2.6	3.5	Table/Black	L	19.95	17.95	17.95	17.95
107326	Keltron	MPC2562	15.2	+5/2, +2.6/0.2	115 @ 60	3-prong/6' cord	3-pin Molex F/3'5"	UL	7.0 x 4.9 x 2.5	3.1	Table/Black	L	4.95	4.49	3.75	2.95
159353	Mean Well	KA60A	17.0	+5/1, +12/0.5 -12/0.5	100-240 @ 50-60	3-prong/6' cord	5-pin DIN M/5'	UL/CSA/TUV	4.1 x 2.6 x 1.5	1.0	Table/Black	S	39.95	35.95	32.95	29.95
189211	ACI World*	57-12-1500D	18.0	+12/1.5	120 @ 60	2-prong wall plug	8-pin mini DIN M/3'4"	UL/CUL	3.4 x 2.6 x 2.2	1.7	Wall/Black	U	4.95	3.95	2.95	2.25
189843	ACI World	EPA201D12	20.0	+12/1.66	100-240 @ 50-60	3-prong recep./ 2	8-pin mini DIN M/3'4"	UL/CSA/TUV/CE	4.3 x 2.3 x 1.3	1.0	Table/Black	S	9.95	8.95	7.95	6.95
196138	DVE*	DSA-0283A	23.0	+5/1, +12/1.49 -5/.43	100-240 @ 47/63	2-prong/ 3	5-pin DIN M/6'	UL/CSA/TUV	4.9 x 2.7 x 1.5	0.8	Table/Black	S	19.95	15.95	11.95	8.95
196269	Everglow	PSU25A13	25.0	+5/2.5, +12/1	100-240 @ 47-63	3-prong/6' cord	4-pin mini DIN M/4'	UL/CUL/TUV/CE	4.2 x 2.6 x 1.4	1.2	Table/Black	S	29.95	26.95	24.95	22.95
190650	Ault	SW300	25.0	+5/4, +12/1	100-250 @ 50-60	3-prong recep./ 2	5-pin DIN M/6'	UL/CSA/TUV	5.9 x 3.4 x 2.1	1.5	Table/Black	S	19.95	15.95	11.95	8.95
173825	Ault	SW109	25.0	+9/2.78	100-250 @ 50-60	3-prong recep./ 2	3-pin Molex F/5'8"	UL/CSA/CE	5.0 x 3.0 x 1.5	1.3	Table/Black	S	10.95	8.95	6.95	4.95
190959	Mean Well	P25A13D	25.7	+5/2.5, +12/0.8 -12/0.3	100-240 @ 47-63	3-prong/6' cord	5-pin DIN M/6'	CUL/TUV/CE	4.1 x 2.6 x 1.4	1.1	Table/Black	S	37.95	33.95	30.95	27.95
189561	Phihong	PSM-3012G	26.0	+5/4, +12/0.5	100-240 @ 50-60	3-prong recep./ 1	5-pin mini DIN M/6'	UL/CSA	5.8 x 2.9 x 1.6	1.3	Table/Beige	S	19.95	15.95	11.95	8.39
203043	Ault	SC200	32.0	+5/4, +12/1	100-240 @ 50-60	3-prong recep./ 2	5-pin DIN M/6'	UL/CSA/CE	5.0 x 3.0 x 1.6	1.3	Table/Black	S	19.95	16.95	14.95	12.95
155053	Mean Well*	SPU41-13D1	40.6	+5/5, +12/1, -12/0.3	100-240 @ 47-63	3-prong/6' cord	5-pin mini DIN F/4'	UL/CSA/TUV	5.5 x 3.0 x 1.6	1.3	Table/Black	S	49.95	44.95	39.95	35.95
203078	Umec	UP0551A-12P	48.0	+12/4	100-240 @ 47-63	3-prong recep./ 2	5-pin DIN M/6'	UL/CSA/CE	5.5 x 2.7 x 1.6	1.3	Table/Black	S	29.95	26.95	23.95	21.95
203588	Skynet	SNPA077	72.0	+12/6	115/230 @ 50-60	3-prong/ 2	5-pin DIN M/6'	UL/CSA/TUV/CE	7.0 x 3.6 x 2.2	2.2	Table/Black	S	39.95	35.95	35.95	35.95
182959	Elpac*	W7212	72.0	+12/6	95-250 @ 47-63	3-prong/6' cord	5-pin DIN F/6'	UL/CSA/CE	6.2 x 3.8 x 2.6	2.5	Table/Black	S	49.95	44.95	39.95	35.95

* See photo above

** See Accessory Power Input Cords Chart below when AC cord is needed

▲ Manufacturer and Product Number may vary

† S = switching; L = linear; U = unregulated



38041



38050

** Accessory Power Input Cords



189587

Part No.	Ref. No.**	Description	Color	AWG	Certification	Cord Length	Wt. (lbs.)	Cord Type	1	10	100	250
38041	1	3-conductor detachable power supply cord	Beige	18/3	UL/CSA	6'	0.4	SVT	$3.49	$3.15	$2.79	$2.49
38050	2	3-conductor detachable power supply cord	Black	18/3	UL/CSA	6'	0.4	SVT	3.95	3.35	2.75	2.25
189587	3	2-conductor detachable power supply cord for 196138/196146	Black	18/2	UL/CSA	6'	0.3	SPT	2.95	2.49	2.15	1.79

Part Number Color Code: New Sale Refurbished Closeout


102234


100108


Female Male DIN

We specialize in Wall Transformers – Call for additional OEM PRICING.

AC to AC Wall Transformers

NEW

- Input: 120VAC @ 60Hz • Current rating up to 2.5A
- Plugs into standard 2-prong/3-prong 115V outlet
- See page 95 for wall transformer enclosures

We will change any power plug (see page 66) on any AC wall transformer listed (100 piece minimum)


206412


10102

Part Number	Mfr. Cross Reference No.*	Output Rating Voltage	Output Rating Current	Output Plug ID x OD (mm) Plug Type	Dimensions (in.) (±10%) H	W	D	Case Color	DC Cord Length	Wt. (lbs.)	Agency Approvals	Pricing 1	10	50	100
101127	DFX10096B	7 VAC	1500 mA	2.5 mm x 5.5 mm female	1.88	2.20	1.95	Black	7' 6"	0.8	UL/CSA	$4.95	$4.49	$3.95	$3.49
163310	43-3003	9 VAC	50 mA	2.1 mm x 5.5 mm female	2.20	1.75	1.45	Black	6'	0.3	UL/CUL	1.25	.99	.75	.59
184751	M/N40	9 VAC	450 mA	2.1 mm x 5.5 mm female	2.75	1.97	1.68	Black	6'	0.8	UL/CSA	4.95	3.95	2.95	2.25
100061	AC905F1	9 VAC	500 mA	2.1 mm x 5.5 mm female	2.35	1.95	1.56	Black	6'	0.6	UL/CUL	4.95	4.49	3.95	3.49
119204	A41090800	9 VAC	800 mA	2.1 mm x 5.5 mm female	2.55	1.91	1.74	Black	6'	0.6	UL	5.95	5.35	4.59	4.29
120141	AC908M3	9 VAC	800 mA	3.5 mm male	2.55	1.91	1.74	Black	6'	0.5	UL	5.95	5.35	4.79	4.29
102234	AC910F1	9 VAC	1000 mA	2.1 mm x 5.5 mm female	3.20	2.24	1.93	Black	6'	0.6	UL/CSA	5.95	5.35	4.79	3.95
157041	41A9-1000	9 VAC	1000 mA	2.5 mm x 5.5 mm female	2.06	2.12	1.63	Black	6'	0.6	UL/CSA	5.95	5.35	4.79	4.29
112336	AC915F5	9 VAC	1500 mA	2.5 mm x 5.5 mm female	2.50	2.20	1.96	Black	6'	0.9	UL	9.95	8.95	7.95	6.95
101258	41A12-500	12 VAC	500 mA	2.1 mm x 5.5 mm female	2.76	1.97	1.60	Black	6'	0.6	UL/CSA	4.95	4.49	3.95	3.49
189202	A41A12-830	12 VAC	830 mA	2.1 mm x 5.5 mm female	2.03	2.09	1.62	Black	6'	0.7	UL/CSA	5.49	4.39	3.29	2.49
10081	AC1210F1	12 VAC	1000 mA	2.1 mm x 5.5 mm female	2.56	2.39	1.99	Black	6'	0.7	UL/CSA	5.49	4.79	4.19	3.75
100167	AC1210F5	12 VAC	1000 mA	2.5 mm x 5.5 mm female	3.20	2.41	2.00	Black	6'	0.7	UL/CSA	5.95	5.35	4.79	4.29
10428	AC1210M3	12 VAC	1000 mA	3.5 mm male	2.60	2.40	1.97	Black	6'	0.6	UL/CUL	5.49	4.79	4.19	3.75
167151	HET57116	12 VAC	1500 mA	2.1 mm x 5.5 mm female	3.36	2.68	2.15	Black	6'	1.5	—	9.95	8.95	7.95	6.95
153761	AC1216M3	12 VAC	1600 mA	3.5 mm male	2.50	2.21	1.92	Black	6'	0.9	UL	9.95	8.95	7.95	6.95
206404	MGT1220	12 VAC	1670 mA	Screw terminals	3.19	2.19	1.93	White	—	0.9	UL/CSA	7.25	6.49	5.95	5.35
171408	AC1405F1	14 VAC	500 mA	2.1 mm x 5.5 mm female	2.76	1.97	1.60	Black	6'	0.6	UL/CSA	4.95	4.49	3.95	3.49
171854	DV1485AC	14 VAC	850 mA	2.5 mm x 5.5 mm right angle female	3.00	1.95	1.69	Black	6'	0.7	UL/CUL	5.95	4.79	3.59	2.69
100108	AC1610F1	16 VAC	1000 mA	2.1 mm x 5.5 mm female	2.50	2.21	1.93	Black	6'	0.9	UL/CSA	7.95	6.95	6.25	5.59
190490	WP571616	16 VAC	1000 mA	2.1 mm x 5.5 mm female	3.30	2.70	2.20	Black	8'	1.0	UL/CSA	4.95	4.49	3.95	3.49
163053	035-0165	16 VAC	1100 mA	2.5 mm x 5.5 mm female	3.20	2.30	1.80	Black	6'	1.1	UL/CSA	7.95	6.95	6.25	5.59
206412	MGT1620	16.5 VAC	1250 mA	Screw terminals	3.19	2.19	1.93	White	—	0.9	UL/CSA	7.25	6.49	5.95	5.35
121216	AC1810F1	18 VAC	1000 mA	2.1 mm x 5.5 mm female	3.11	2.36	1.85	Black	6'	1.1	UL/CUL	7.95	6.95	6.25	5.59
185439	T5182200-A020G	18 VAC	1850 mA	2.1 mm x 5.5 mm right angle female	3.34	2.69	2.19	Black	6'	1.7	UL/CSA	7.95	6.36	4.79	3.59
206421	MGT2410	24 VAC	420 mA	Screw terminals	2.50	2.04	1.67	White	—	0.6	UL/CSA	6.95	6.25	5.59	4.95
87581	AC2405F1	24 VAC	500 mA	2.1 mm x 5.5 mm female	2.50	2.24	1.92	Black	6'	0.9	UL/CSA	5.49	4.95	4.49	3.95
206439	MGT2420	24 VAC	830 mA	Screw terminals	3.19	2.19	1.93	White	—	0.9	UL/CSA	7.25	6.49	5.95	5.35
140599	AC2410F1	24 VAC	1000 mA	2.1 mm x 5.5 mm female	3.00	2.20	1.90	Black	6'	1.2	UL/CSA	7.95	6.95	6.25	5.59
10102	AC2410M3	24 VAC	1000 mA	3.5 mm male	3.00	2.20	1.90	Black	6'	1.2	UL/CSA	7.95	6.95	6.25	5.59
176356	WP573024	24 VAC	1250 mA	2.1 mm x 5.5 mm female	3.36	2.67	2.20	Black	5'8"	1.6	UL/CSA	7.95	7.15	6.45	5.79

DC Wall Transformers


112070


164101


Stripped Female Male

We specialize in Wall Transformers – Call for additional OEM PRICING.

AC to DC Wall Transformers

Unregulated unless specified under output plug

- Input: 120VAC @ 60Hz • Current rating up to 2.5A
- Plugs into standard 2-prong/3-prong 115V outlet
- See page 95 for wall transformer enclosures


155601


101266

Polarity 1 ⊕—•—⊖ (center negative)

We will change any power plug (pg 66) on any DC wall transformer listed (100 pc. minimum)

Polarity 2 ⊖—•—⊕ (center positive)

Part Number	Mfr. Cross Reference No.*	Output Rating Voltage	Output Rating Current	Output Plug ID x OD (mm) Plug Type / Polarity	Dimensions (in.) (±10%) H	W	D	Case Color	DC Cord Length	Wt. (lbs.)	Agency Approvals	Pricing 1	10	50	100
112070	DC502F5	5 VDC	225 mA	2.5 mm x 5.5 mm female **2**	1.90	2.20	1.95	Black	7'	0.3	UL/CSA	$5.95	$5.35	$4.79	$4.29
164101	DCR505F12	5 VDC	500 mA	2.1 mm x 5.5 mm female **2** **(regulated)**	2.76	2.02	1.59	Black	6'	0.6	UL/CSA	7.95	6.95	6.25	5.59
155601	DC510F1	5 VDC	1000 mA	2.1 mm x 5.5 mm female **2**	2.58	1.96	1.71	Black	6'	0.7	UL/CSA	6.95	6.25	5.59	4.95
171301	JOD48U08	5 VDC	1000 mA	2.1 mm x 5.5 mm female **2** **(regulated)**	3.13	2.93	2.00	Black	6'	1.0	UL/CUL	9.95	8.95	7.95	6.95
196411	DCR510F12V	5 VDC	1000 mA	2.1 mm x 5.5 mm female **2** **(regulated)**	3.28	2.22	1.91	Ivory	6'	1.0	UL/CUL	9.95	8.95	7.95	6.95
168604	RWP480505	5 VDC	1000 mA	2.5 mm x 5.5 mm female **2** **(regulated)**	3.30	2.20	1.92	Black	6'	1.2	UL/CSA	9.95	8.95	7.95	6.95
196314	SYS10891005LW2	5 VDC	2000 mA	2.1 mm x 5.5 mm female **2** **(regulated)**	2.91	1.93	1.59	Black	6'	0.4	UL/CSA/CE	12.95	10.35	7.79	5.49
189190	EPA101MU-058	5 VDC	2000 mA	2.5 mm x 5.5 mm female **1** **(regulated)**	3.16	2.37	1.34	Black	6'	0.4	UL/CUL	12.95	10.35	7.79	5.49
196470	WR92A2400CCP	5 VDC	2400 mA	2.1 mm x 5.5 mm female **2** **(regulated)**	3.20	2.20	1.90	Black	6'	0.5	UL/CSA	12.95	11.49	10.49	9.49
161541	WA15050R	5 VDC	2500 mA	2.1 mm x 5.5 mm female **2** **(regulated)**	2.92	1.95	1.62	Black	6'	0.4	UL/CSA	14.95	13.49	11.95	10.95
190511	SADB-0885	6 VDC	200 mA	2.1 mm x 5.5 mm female **2** **(regulated)**	2.56	1.81	1.51	Black	6'	0.4	UL/CUL	5.95	4.79	3.59	2.69
119255	DC605F11	6 VDC	500 mA	2.1 mm x 5.5 mm female **1**	2.31	1.75	1.75	Black	6'	0.6	UL/CUL	4.95	4.49	3.95	3.49
101266	DC605F12	6 VDC	500 mA	2.1 mm x 5.5 mm female **2**	2.44	1.89	1.61	Black	6'	0.4	UL/CSA	4.25	3.75	3.25	2.95
15544	DC605M3	6 VDC	500 mA	3.5 mm male **2**	2.44	1.89	1.61	Black	6'	0.4	UL/CSA	4.25	3.75	3.25	2.95
201451	AP4733	6 VDC	700 mA	2.1 mm x 5.5 mm female **2**	2.60	1.85	1.44	Black	6'	0.5	UL/CUL	4.95	3.95	2.95	2.19
147707	DC608F1	6 VDC	800 mA	2.1 mm x 5.5 mm female **2**	2.33	1.98	1.62	Black	6'	0.6	UL/CSA	5.49	4.75	4.25	3.95
206148	DSA-0151A-06A	6 VDC	2000 mA	2.1 mm x 5.5 mm female **2** **(regulated)**	3.13	2.09	1.36	Black	6'	0.4	UL/CUL	12.95	11.49	10.49	9.49

* Manufacturer may vary

DC Wall Transformers continued on pages 61 & 62

We specialize in Wall Transformers – Call for additional OEM PRICING.


100845



100853



AC to DC Wall Transformers

Unregulated unless specified under output plug

- Input: 120VAC @ 60Hz
- Current rating up to 2.5A
- Plugs into standard 2-prong/3-prong 115V outlet
- See page 95 for wall transformer enclosures


100175


127976

We will change any power plug (pg 66) on any DC wall transformer listed (100 pc. minimum)

Polarity 1 ⊕—●—⊖ (center negative)

Polarity 2 ⊖—●—⊕ (center positive)

Part Number	Mfr. Cross Reference No.*	Output Rating Voltage	Output Rating Current	Output Plug ID x OD (mm) Plug Type / Polarity	Dimensions (in.)(±10%) H	W	D	Case Color	DC Cord Length	Wt. (lbs.)	Agency Approvals	Pricing 1	10	50	100
196761	8233	7.5 VDC	1100 mA	2.1 mm x 5.5 mm female **2**	2.11	1.88	0.99	Black	6'	0.2	UL/CSA	$7.95	$6.95	$6.25	$5.59
127511	DC810F1	8 VDC	1000 mA	2.1 mm x 5.5 mm female **2**	3.10	2.50	2.10	Black	6'	1.3	UL	7.95	6.95	6.25	5.59
202147	DC901F12	9 VDC	100 mA	2.1 mm x 5.5 mm female **2**	3.15	2.36	1.97	Black	6'	0.3	UL/CUL	3.95	3.55	3.19	2.85
134025	DC902F11	9 VDC	200 mA	2.1 mm x 5.5 mm female **1**	2.13	1.71	1.55	Black	6'	0.4	UL/CSA	4.25	3.79	3.39	3.09
100845	DC902F12	9 VDC	200 mA	2.1 mm x 5.5 mm female **2**	2.06	1.70	1.47	Black	6'	0.4	UL/CSA	4.25	3.75	3.25	2.95
170958	HKA0920EC	9 VDC	200 mA	2.1 x 5.5 mm F **2 (230 VAC input; European)**	2.57	1.70	1.56	Black	6'	0.5	TUV/CE	1.25	.99	.75	.59
100837	DIA3590	9 VDC	200 mA	3.5 mm male **2**	2.57	1.75	1.55	Black	6'	0.4	UL/CSA	4.25	3.69	3.25	2.95
190529	AD9123	9 VDC	250 mA	2.5 mm x 5.5 mm rt. angle **2** **(regulated)**	2.47	2.02	1.60	Black	12'	0.5	UL/CSA	6.95	6.25	5.59	4.95
191767	CTPS350903002C0	9 VDC	300 mA	1.3 mm x 3.5 mm right angle female **2**	2.29	1.77	1.47	Black	6'	0.4	UL/CSA	4.25	3.39	2.59	1.95
133891	DC903F1	9 VDC	300 mA	2.1 mm x 5.5 mm female **2**	2.00	1.50	1.50	Black	6'	0.4	UL/CSA	4.25	3.75	3.19	2.79
189237	35-9-300C	9 VDC	300 mA	2.5 mm x 5.5 mm female **2**	2.19	1.73	1.42	Black	6'	0.4	UL/CSA	4.25	3.75	3.25	2.95
169519	KX-TCA1	9 VDC	350 mA	2.1 mm x 5.5 mm right angle female **1**	2.72	1.70	1.55	Gray	6'	0.4	UL/CSA	4.49	3.95	3.39	2.95
202155	DC9035F12	9 VDC	350 mA	2.1 mm x 5.5 mm female **2**	3.15	2.36	1.97	Black	6'	0.3	UL/CUL	4.499	3.95	3.55	3.25
202163	DC904F12	9 VDC	400 mA	2.1 mm x 5.5 mm female **2**	3.27	2.91	2.28	Black	6'	0.5	UL/CUL	4.95	4.49	3.95	3.55
140636	DC904F5	9 VDC	400 mA	2.5 mm x 5.5 mm female **2**	2.58	2.00	2.00	Black	6'	0.6	UL/CSA	4.95	4.49	3.95	3.55
202171	DC9045F12	9 VDC	450 mA	2.1 mm x 5.5 mm female **2**	3.27	2.91	2.28	Black	6'	0.5	UL/CUL	4.79	4.29	3.89	3.49
196736	AD41090500	9 VDC	500 mA	1.3 mm x 3.5 mm female **2**	2.48	2.05	1.66	Black	6'	0.6	UL/CUL	4.95	3.95	2.95	2.25
163627	DC905F11	9 VDC	500 mA	2.1 mm x 5.5 mm female **1**	2.50	1.90	1.74	Black	6'	0.6	UL/CSA	4.95	4.49	3.95	3.49
170270	PQLV1	9 VDC	500 mA	2.1 mm x 5.5 mm right angle female **1**	2.68	1.90	1.75	Gray	6'	0.6	UL/CSA	2.95	2.65	2.39	2.15
100853	DC905F12	9 VDC	500 mA	2.1 mm x 5.5 mm female **2**	2.50	1.90	1.74	Black	6'	0.6	UL/CSA	4.95	4.49	3.95	3.49
147731	43-1125	9 VDC	500 mA	2.1 mm x 5.5 mm female **2**	2.56	1.95	1.74	Beige	6'	0.6	UL/CSA	4.95	4.49	3.95	3.49
180540	FZ1729A	9 VDC	500 mA	2.5 mm x 5.5 mm right angle female **2**	2.41	1.17	1.57	Black	6'	0.4	UL/CSA	4.95	4.49	3.95	3.49
203174	LPS-017	9 VDC	500 mA	2.5 mm x 5.5 mm female **1** **(regulated)**	3.31	2.23	1.90	Black	6'	0.5	UL/CSA	9.95	8.95	7.95	6.95
15561	DC905M3	9 VDC	500 mA	3.5 mm male **2**	2.50	1.95	1.56	Black	6'	0.5	UL/CSA	4.95	4.49	3.95	3.49
202180	DC906F12	9 VDC	600 mA	2.1 mm x 5.5 mm female **2**	3.27	2.91	2.28	Black	6'	0.6	UL/CUL	5.49	4.75	4.25	3.95
100175	DC906F5	9 VDC	600 mA	2.5 mm x 5.5 mm female **2**	2.50	1.90	1.75	Black	6'	0.6	UL/CSA	5.49	4.75	4.25	3.95
202198	DC908F12	9 VDC	800 mA	2.1 mm x 5.5 mm female **2**	3.27	2.91	2.28	Black	6'	0.6	UL/CUL	5.95	5.35	4.79	4.29
164929	48-9-900D	9 VDC	900 mA	2.1 mm x 5.5 mm female **1**	2.72	2.30	1.83	Black	6'	0.9	UL/CUL	5.95	4.79	3.59	2.69
100888	48-09-1000D	9 VDC	1000 mA	2.1 mm x 5.5 mm female **2**	2.58	2.39	1.97	Black	6'	1.0	UL/CSA	7.95	6.49	5.59	5.19
127503	DC910F5	9 VDC	1000 mA	2.5 mm x 5.5 mm female **2**	2.59	2.43	2.00	Black	6'	0.9	UL/CSA	7.95	6.59	5.75	5.25
15587	PAG1200	9 VDC	1000 mA	3.5 mm male **2**	2.59	2.43	2.00	Black	6'	0.9	UL/CSA	7.95	6.59	5.75	5.25
130526	DC912F11	9 VDC	1200 mA	2.1 mm x 5.5 mm female **1**	2.40	2.00	1.80	Black	6'	1.0	UL/CSA	8.49	7.49	6.49	5.49
143693	DC915F1	9 VDC	1500 mA	2.1 mm x 5.5 mm female **2**	3.25	2.50	2.25	Black	6'	1.3	UL/CSA	9.95	8.95	7.95	6.95
161550	WA15090R	9 VDC	1670 mA	2.1 mm x 5.5 mm female **2** **(regulated)**	2.92	1.95	1.62	Black	6'	0.4	UL/CUL	13.95	12.49	11.25	9.95
163993	DC1202F11R	12 VDC	200 mA	2.1 mm x 5.5 mm right angle female **1**	2.38	1.70	1.63	Black	6'	0.4	UL/CSA	4.25	3.79	3.39	3.09
100095	DC1202F1	12 VDC	200 mA	2.1 mm x 5.5 mm female **2**	2.14	1.82	1.49	Black	6'	0.4	UL/CSA	4.25	3.75	3.25	2.95
158043	DC1202F12R	12 VDC	200 mA	2.1 mm x 5.5 mm right angle female **2**	2.19	1.65	1.50	Black	6'	0.4	UL/CSA	4.25	3.75	3.25	3.09
149340	351202002	12 VDC	200 mA	2.5 mm x 5.5 mm female **2**	2.52	1.73	1.50	Black	6'	0.4	UL/CSA	4.25	3.75	3.25	3.09
185658	DV1220DCB	12 VDC	200 mA	2.5 mm x 5.5 mm right angle female **2**	2.15	1.68	1.49	Black	6'	0.4	UL/CSA	4.25	3.39	2.55	1.95
129322	DV1220DC	12 VDC	200 mA	2.5 mm x 5.5 mm right angle female **2**	2.20	1.70	1.50	Gray	6'	0.4	UL/CSA	4.25	3.75	3.25	3.09
164283	HD1225	12 VDC	250 mA	Stripped & tinned w/ strain relief	2.18	1.69	1.49	Gray	6'	0.4	UL/CUL	2.95	2.49	2.25	1.95
163491	AD1230	12 VDC	300 mA	Just cut, strip and tin	2.19	2.16	1.59	Black	6'	0.5	UL/CSA	3.95	3.55	3.19	2.85
201099	SPN4230A	12 VDC	300 mA	1.3 mm x 3.5 mm female **2**	2.34	1.98	1.66	Black	6'	0.5	UL/CSA	4.75	4.25	3.79	3.49
127976	DC1203F12	12 VDC	300 mA	2.1 mm x 5.5 mm female **2**	2.60	1.80	1.60	Black	6'	0.7	UL/CSA	4.75	4.25	3.79	3.49
190043	41-2-15	12 VDC	300 mA	2.5 mm x 5.5 mm right angle female **2**	2.90	2.00	1.55	Black	6'	0.5	UL/CSA	4.75	3.79	2.85	2.19
190502	DV1140DC	12 VDC	400 mA	2.1 mm x 5.5 mm right angle female **2**	2.60	2.12	1.85	Black	6'	0.5	UL/CUL	4.95	4.49	3.95	3.55
114825	DC1205ST	12 VDC	500 mA	Just cut, strip and tin	2.52	2.02	1.65	Black	6'	0.6	CUL	4.75	4.25	3.79	3.25
15368	DC1205F11	12 VDC	500 mA	2.1 mm x 5.5 mm female **1**	2.50	1.90	1.57	Black	6'	0.6	UL/CSA	5.39	4.89	4.39	3.95
195741	DC1205F11RG	12 VDC	500 mA	2.1 mm x 5.5 mm right angle female **1**	2.50	2.02	1.65	Lt. Gray	6'	0.6	UL/CUL	5.39	4.89	4.39	3.95
102496	DC1205F12	12 VDC	500 mA	2.1 mm x 5.5 mm female **2**	2.50	1.90	1.57	Black	6'	0.6	UL/CSA	5.39	4.75	4.09	3.79
131300	SCP41	12 VDC	500 mA	2.1 mm x 5.5 mm right angle female **2**	2.60	1.90	1.74	Beige	6'	0.6	UL/CSA	5.95	5.35	4.79	4.29
162996	DCR1205F12	12 VDC	500 mA	2.1 mm x 5.5 mm female **2** **(regulated)**	3.17	2.20	1.91	Black	6'	0.9	—	9.95	8.95	7.95	6.95
200125	DV1250	12 VDC	500 mA	2.5 mm x 5.5 mm female **1**	2.35	1.96	1.64	Black	6'	1.0	UL/CSA	5.39	4.89	4.39	3.95
102277	DC1205F5	12 VDC	500 mA	2.5 mm x 5.5 mm female **2**	2.50	2.08	1.68	Black	6'	0.6	UL/CSA	5.39	4.75	4.09	3.79
17267	DC1205M3	12 VDC	500 mA	3.5 mm male **2**	2.50	1.90	1.57	Black	6'	0.6	UL/CSA	5.39	4.69	4.19	3.95
202201	DC1206F12	12 VDC	600 mA	2.1 mm x 5.5 mm female **2**	3.27	2.91	2.28	Black	6'	0.6	UL/CUL	5.95	5.35	4.79	4.29
202219	DC120F12	12 VDC	700 mA	2.1 mm x 5.5 mm female **2**	3.27	2.91	2.28	Black	6'	0.6	UL/CUL	6.25	5.59	4.95	4.49
117479	DC1208F1	12 VDC	800 mA	2.1 mm x 5.5 mm female **2**	2.99	2.28	1.95	Black	6'	0.9	UL/CSA	6.49	5.49	4.79	4.39
181711	48D12800B	12 VDC	800 mA	2.1 x 5.5 mm F **2 (240 VAC input; UK Plug)**	3.18	2.17	2.18	Black	6'	1.1	CE/TUV	3.95	3.55	3.19	2.89

* Manufacturer may vary

DC Wall Transformers continued on page 60 & 62

Part Number Color Code: New | Sale | Refurbished | Closeout

We specialize in Wall Transformers – Call for additional OEM PRICING.



15392 101291


Stripped Female Male

AC to DC Wall Transformers NEW

Unregulated unless specified under output plug

- Input: 120VAC @ 60Hz • Current rating up to 2.5A
- Plugs into standard 2-prong/3-prong 115V outlet
- See page 95 for wall transformer enclosures



123932 123158

Polarity 1 ⊕—●—⊖ (center negative)

We will change any power plug (page 66) on any DC wall transformer listed (100 pc. minimum)

Polarity 2 ⊖—●—⊕ (center positive)

Part Number	Mfr. Cross Reference No.*	Output Rating Voltage	Output Rating Current	Output Plug ID x OD (mm) Plug Type / Polarity	Dimensions (in.)(±10%) H	W	D	Case Color	DC Cord Length	Wt. (lbs.)	Agency Approvals	Pricing 1	10	50	100
129331	48-12-800	12 VDC	800 mA	2.5 mm x 5.5 mm female **2**	2.99	2.28	1.95	Black	6'	0.9	UL/CSA	$6.49	$5.49	$4.79	$4.39
121232	AW10D1GA	12 VDC	800 mA	3.5 mm male **2**	2.57	2.40	1.95	Black	6'	0.9	UL/CSA	6.49	5.49	4.79	4.39
202227	DC1209F12	12 VDC	900 mA	2.1 mm x 5.5 mm female **2**	3.94	2.91	2.36	Black	6'	0.9	UL/CUL	7.25	6.49	5.89	5.29
100870	DC1210F1	12 VDC	1000 mA	2.1 mm x 5.5 mm female **2**	2.58	2.39	1.97	Black	6'	0.9	UL/CSA	7.95	6.95	6.25	5.59
170245	DCR1210F12	12 VDC	1000 mA	2.1 mm x 5.5 mm female **2** **(regulated)**	3.20	2.26	1.97	Black	6'	1.2	—	12.95	11.49	10.49	9.49
105478	DC1210F5	12 VDC	1000 mA	2.5 mm x 5.5 mm female **2**	2.58	2.39	1.97	Black	6'	1.0	UL/CSA	7.95	6.95	6.25	5.59
199566	WK1201A01DN	12 VDC	1000 mA	2.5 mm x 5.5 mm female **2** (w/ RF filter)	3.21	2.20	2.01	Black	6'	1.2	UL/CSA	7.95	6.39	4.79	3.59
189579	BCU12100	12 VDC	1000 mA	2.5 mm x 5.5 mm right angle female **2**	3.20	2.19	1.93	Black	6'	1.0	UL/CSA	7.95	6.39	4.79	3.59
15392	DC1210M3	12 VDC	1000 mA	3.5 mm male **2**	2.58	2.39	1.97	Black	6'	1.0	UL/CSA	7.95	6.95	6.25	5.59
196779	D1212950	12 VDC	1200 mA	2.5 mm x 5.5 mm female **2**	3.04	2.29	1.85	Black	6"	1.0	UL/CUL	6.75	5.49	4.69	4.49
196445	YS1015U12	12 VDC	1250 mA	2.1 mm x 5.5 mm female **2** **(regulated)**	2.92	1.95	1.82	Black	5'	0.4	UL/CSA	11.95	9.59	7.19	4.95
183433	WA15-120	12 VDC	1250 mA	2.5 mm x 5.5 mm female **2** **(regulated)**	2.97	1.60	2.47	Black	6'	0.4	UL/CUL	14.95	12.95	11.49	10.95
191353	ADP-15FB	12 VDC	1250 mA	2.5 mm x 5.5 mm female **2** **(regulated)**	3.48	2.23	1.20	Black	10' (clear)	0.4	UL/CUL	14.95	11.95	8.95	6.95
189325	57D12-1500	12 VDC	1500 mA	Cut, stripped and tinned (w/ on-off switch)	3.40	2.60	2.20	Black	8'	1.5	UL	9.95	8.95	7.95	6.95
203035	A41215	12 VDC	1500 mA	2.1 mm x 5.5 mm female **1**	3.55	2.45	1.86	Black	6'	1.5	UL/CSA	10.95	9.95	8.95	7.95
136881	DC1215F1	12 VDC	1500 mA	2.1 mm x 5.5 mm female **2**	3.40	2.70	2.20	Black	6'	1.5	UL	10.95	9.95	8.95	7.95
101291	DC1215F5	12 VDC	1500 mA	2.5 mm x 5.5 mm female **2**	3.40	2.70	2.20	Black	6'	1.5	UL	10.95	9.95	8.95	7.95
192786	MK135100	13.5 VDC	1000 mA	2.1 mm x 5.5 mm female **1**	2.90	2.27	1.95	Black	6'	1.0	UL	10.95	9.95	8.95	7.95
129314	DV-1250	14 VDC	360 mA	2.5 mm x 5.5 mm right angle female **2**	2.34	1.98	1.60	Black	6'	0.6	UL/CSA	4.95	3.95	2.95	2.19
202235	DC14065F12	14 VDC	650 mA	2.1 mm x 5.5 mm female **2**	3.94	2.91	2.36	Black	6'	0.8	UL/CUL	6.49	5.85	5.25	4.75
123932	DC1407F1	14 VDC	700 mA	2.1 mm x 5.5 mm female **2**	2.58	2.39	1.97	Black	6'	1.0	UL/CSA	6.95	6.25	5.59	4.95
202243	DC1407F52	14 VDC	700 mA	2.5 mm x 5.5 mm female **2**	3.94	2.91	2.36	Black	6'	0.8	UL/CUL	7.25	6.55	5.89	5.29
202251	DC14085F12	14 VDC	850 mA	2.1 mm x 5.5 mm female **2**	3.94	2.91	2.36	Black	6'	0.8	UL/CUL	7.49	6.79	5.95	5.49
202260	DC1410F12	14 VDC	1000 mA	2.1 mm x 5.5 mm female **2**	3.94	2.91	2.36	Black	6'	0.9	UL/CUL	7.95	6.95	6.25	5.59
202278	DC1412F12	14 VDC	1200 mA	2.1 mm x 5.5 mm female **2**	3.94	2.91	2.36	Black	6'	0.8	UL/CUL	8.95	7.95	6.95	6.25
201101	SPN4340A	15 VDC	200 mA	1.3 mm x 3.5 mm female **2**	2.15	1.76	1.47	Black	6'	0.5	UL/CSA	4.95	3.95	2.95	2.25
190001	DC1505F1	15 VDC	500 mA	2.1 mm x 5.5 mm female **2**	2.30	2.35	1.90	Black	6'	0.8	UL/CSA	5.95	5.35	4.79	4.29
189982	DC1505F5	15 VDC	500 mA	2.5 mm x 5.5 mm female **2**	2.30	2.35	1.90	Black	6'	0.8	UL/CSA	5.95	5.35	4.79	4.29
155803	DC1506F11	15 VDC	600 mA	2.1 mm x 5.5 mm female **1**	2.90	2.33	1.90	Black	6'	1.0	UL/CSA	6.95	6.25	5.59	4.95
203502	48150900	15 VDC	900 mA	2.5 mm x 5.5 mm female **2**	2.55	2.23	1.91	Black	6'	1.0	UL/CSA	6.95	6.25	5.49	4.75
151992	AD-SS-2	15 VDC	1000 mA	2.1 mm x 5.5 mm female **1**	3.13	2.00	1.88	Beige	6'	1.5	UL/CSA	7.95	6.95	6.25	4.95
191652	DC1510F12	15 VDC	1000 mA	2.1 mm x 5.5 mm female **2**	3.26	2.20	1.90	Black	6'	1.0	UL/CSA	7.95	6.95	6.25	5.59
169391	WA15-150	15 VDC	1000 mA	2.1 mm x 5.5 mm female **2** **(regulated)**	2.90	1.90	1.60	Black	6'	0.5	UL/CUL	12.95	11.49	10.49	9.49
162317	DC1605F1	16 VDC	500 mA	2.1 mm x 5.5 mm female **2**	2.23	2.35	1.90	Black	6'	0.8	UL/CSA	7.95	6.95	6.25	5.59
181729	CXV18250	18 VDC	250 mA	2.1 mm x 5.5 mm female **2**	2.61	2.04	1.60	Black	6'	0.6	UL	4.95	4.49	3.95	3.55
163272	48-18-500D	18 VDC	500 mA	2.1 mm x 5.5 mm female **2**	2.61	2.30	1.85	Black	6'	0.8	UL/CUL	7.95	6.95	6.25	5.59
168487	KWM020188	18 VDC	1000 mA	2.1 mm x 5.5 mm female **2** **(regulated)**	2.91	1.94	1.62	Black	6'	0.4	UL/CUL	15.95	14.49	12.95	11.49
206957	WD1H1000LCX	18 VDC	1000 mA	2.5 mm x 5.5 mm female **2**	3.36	2.57	2.14	Black	6'	1.4	—	9.95	7.95	5.95	4.49
203158	RJK-24251-N	24 VDC	250 mA	2.1 mm x 5.5 mm female **2**	3.24	2.23	1.93	Black	6'	1.3	—	6.95	6.25	5.59	4.95
102285	DC2404F1	24 VDC	400 mA	2.1 mm x 5.5 mm female **2**	3.00	2.30	2.00	Black	6'	0.9	UL/CUL	7.95	6.95	6.25	5.59
163635	DC2405F11	24 VDC	500 mA	2.1 mm x 5.5 mm female **1**	3.12	2.34	1.90	Black	6'	1.0	UL/CUL	7.95	6.95	6.25	5.59
174861	DCR2405F12	24 VDC	500 mA	2.1 mm x 5.5 mm female **2** **(regulated)**	3.35	2.68	2.16	Black	6'	1.3	—	10.95	9.95	8.95	7.95
191556	DC2405F5	24 VDC	500 mA	2.5 mm x 5.5 mm female **2**	3.12	2.34	1.90	Black	6'	1.0	UL/CUL	7.95	6.95	6.25	5.59
174879	DCR2405F52	24 VDC	500 mA	2.5 mm x 5.5 mm female **2** **(regulated)**	3.35	2.68	2.16	Black	6'	1.3	—	10.95	9.95	8.95	7.95
139088	DC2405M3	24 VDC	500 mA	3.5 mm male **2**	3.12	2.34	1.90	Black	6'	1.0	UL/CUL	7.95	6.95	6.25	5.59
196322	P48240600A020G	24 VDC	600 mA	2.1 mm x 5.5 mm female **2**	3.31	2.31	1.92	Black	6'	1.1	UL/CSA	8.95	7.19	5.39	3.95
167118	BC2424HP	24 VDC	750 mA	2.1 mm x 5.5 mm female **2**	3.34	2.67	2.20	Beige	6'	1.0	UL/CSA	7.95	6.95	6.25	5.59
168495	DC2408F1	24 VDC	800 mA	2.1 mm x 5.5 mm female **2**	2.91	1.94	1.62	Black	6'	0.4	UL/CUL/TUV	9.95	8.95	7.95	6.95
163651	DC2412F11	24 VDC	1200 mA	2.1 mm x 5.5 mm female **1**	3.84	3.01	2.56	Black	6'	2.0	—	12.95	11.49	9.95	8.95
163643	DC242F12	24 VDC	1200 mA	2.1 mm x 5.5 mm female **2**	3.84	3.01	2.56	Black	6'	2.0	—	12.95	11.49	9.95	8.95
117321	DC2412F5	24 VDC	1200 mA	2.5 mm x 5.5 mm female **2**	3.84	3.01	2.56	Black	6'	2.0	—	12.95	11.49	9.95	8.95
121241	DC2412M3	24 VDC	1200 mA	3.5 mm male **2**	3.37	2.70	2.22	Black	6'	2.0	—	12.95	11.49	9.95	8.95
199523	DDU300050	30 VDC	500 mA	2.5 mm x 5.5 mm female **2**	2.90	2.27	1.89	Black	6'	1.1	UL/CUL	9.95	8.95	7.95	6.95
203191	AP3650F	48 VDC	250 mA	2.5 mm x 5.5 mm right angle female **2**	3.19	2.20	1.90	Black	6'	0.9	UL/CUL	6.95	6.25	5.59	4.95
15309	DCM05	3, 4.5, 6, 7.5, 9, 12VDC	500 mA	1.35 x 3.5, 2.1 x 5.0, 2.5 x 5.5 **female** 2.5, 3.5 **male**, 9V battery snap (LED ind.)	2.98	2.15	2.10	Black	6'	0.7	UL/CSA	8.95	7.95	6.95	6.25
190641	DCM08	3, 4.5, 6, 7.5, 9, 12VDC	800 mA	1.5 x 5.5, 2.1 x 5.0, 2.1 x 5.5, 2.5 x 5.5 **fem** 2.5, 3.5 **male**, polarity sw. (LED ind.)	3.87	2.65	2.29	Black	6'	0.9	UL/CSA	7.95	6.95	6.25	4.95
123158	DCM10	1.5, 3, 4.5, 6, 7.5, 9, 12VDC	1000 mA	1.35 x 3.5, 2.1 x 5.0, 2.5 x 5.5 **female** 2.5, 3.5 **male**, 9V battery snap (LED ind.)	3.71	2.22	2.50	Black	6'	0.9	120 or 220VAC	9.95	8.95	7.95	6.95

* Manufacturer may vary

DC Wall Transformers continued from two previous pages


135394 – Electrolytic


135271 – LEDs


169578 – Photocells


18294 – Toy Motors


149649 – Fans


55968 – Spacers


81701 – Cabinet

* LB grab bag quantities are approximate • Opened grab bags are not returnable • Use our 20-drawer cabinet w/ labels to store your components, P/N 81701, pg 98

Shaded in tan on this page you will find Jameco's nine most popular component Grab Bags. They are all individually bagged, and are combined to make up the Schwab's School Selection (P/N 163213) referenced towards the bottom of the page.

Capacitors

Part No.	Cross Ref. No.	Description	Wt. (lbs.)	1	10
17857	GB100	200 asst. ceramic disc capacitors	0.2	$4.95	$4.49
135335	GB100LB*	1 lb. (813 pcs) asst. ceramic disc caps.	1.0	12.95	11.49
17881	GB101	100 assorted mylar capacitors	0.3	5.95	5.35
135458	GB101LB*	1 lb. (440 pcs) asst. mylar capacitors	1.0	14.95	13.49
17911	GB102	100 assorted electrolytic capacitors radial, axial, snap	0.5	4.95	4.49
135394	GB102LB*	1.5 lb. assorted (300 pcs) electrolytic caps. radial, axial, snap (photo above)	1.5	11.95	10.95
17945	GB103	100 assorted tantalum capacitors (dipped epoxy and solid tubular)	0.1	9.95	8.95

Diodes, Transistors and Crystals/Oscillators

Part No.	Cross Ref. No.	Description	Wt. (lbs.)	1	10	25
17961	GB107	200 asstorted diodes (zener, switching, silicon)	0.1	$5.95	$5.35	$4.79
18171	GB127	100 asstorted transistors (NPN, PNP, power)	0.1	5.95	5.35	4.79
114446	GB150	50 assorted crystals/oscillators	0.2	7.95	6.95	6.25

Trimmer and Single-Turn Potentiometers

Part No.	Cross Ref. No.	Description	Wt. (lbs.)	1	10
18075	GB113	100 asst. 1/10W to 1/8W trimmer pots (100Ω to 2MΩ values)	0.1	$6.95	$6.25
18278	GB174	100 assorted 1/4W & 1/2W single turn pots (100Ω to 5MΩ assorted values)	0.2	6.95	6.25
135407	GB174LB*	1 lb. (295 pcs) 1/4W & 1/2W single turn pots (100Ω to 5MΩ assorted values)	1.0	14.95	13.49

Integrated Circuits and Sockets

Part No.	Cross Ref. No.	Description	Wt. (lbs.)	1	10
17996	GB108	100 assorted 7400, 74LS00 series (74, 74C, 74F, 74S, 74ALS, 74HC, 74HCT)	0.2	$6.95	$6.25
135280	GB108LB*	1 lb. (400 pcs) asst. 7400, 74LS00 series (74, 74C, 74F, 74S, 74ALS, 74HC, 74HCT)	1.0	14.95	12.95
18024	GB109	100 asst. linear series (LM300, 500, 700, 7800, 7900 reg.) DIP, TO-3, TO-220	0.6	7.95	6.95
145242	GB109LB*	2 lb. (300 pcs) asst. linear series (LM300, 500, 700, 7800, 7900 reg.)	2.0	14.95	12.95
114964	GB171	100 asst. microprocessor series (micros, PALS, RAMs, PROMS, EPROMs)	0.7	7.95	6.95
105620	GB120	100 asst. IC sockets (DIP IC, PGA, TO-3)	0.3	5.95	5.35
135386	GB120LB*	1 lb. (260 pcs) assorted IC sockets (DIP IC, PGA, TO-3)	1.0	9.95	8.95

Surprise Computer Products Grab Bag

Best Bargain!

Various electronic components (capacitors, connectors, sockets, LEDs, resistors, diodes, ICs, transistors, pots, oscillators/resonators, inductors, crystals, switches), cables, power supply, transformer, fan, PC board, keyboard and miscellaneous computer products.



Part No.	Cross Ref. No.	Description	Wt. (lbs.)	1	10
18331	GB190	Component/computer grab bag	20.0	$17.95	$15.95

LEDs and Displays

Part No.	Cross Ref. No.	Description	Wt. (lbs.)	1	10	25
18041	GB110	100 assorted sizes & colored LEDs (T1/T1 3/4 round and rectangular)	0.1	$5.95	$5.35	$4.79
18323	GB186	500 asst. sizes #18041 LEDs	0.3	19.95	17.95	15.95
135271	GB110LB*	1 lb. (1900 pcs) asst. #18041 LEDs	1.0	44.95	40.95	38.95
18201	GB162	50 asst. sizes of colored displays (7-segment LED, modules, stick)	0.5	8.95	6.71	4.70

1/4W, 1/2W Resistors and Photocells

Part No.	Cross Ref. No.	Description	Wt. (lbs.)	1	10
18104	GB116	200 asst. 1/4W resistors (5/10%)	0.1	$4.95	$4.49
135351	GB116LB*	1 lb. (2000 pcs) asst. 1/4W resistors	1.0	14.95	13.49
18139	GB117	200 asst. 1/2W resistors (5/10%)	0.2	6.95	6.25
169578	GB125	100 asst. sizes & values photocells	0.2	7.95	6.95

Switches, Toy Motors and Fans

Part No.	Cross Ref. No.	Description	Wt. (lbs.)	1	10
18235	GB165	50 assorted switches (toggle, push button, rocker, slide)	0.4	$7.95	$6.95
135378	GB165LB*	1 lb. (135 pcs) asst. #18235 switches	1.0	17.95	15.95
18294	GB182	5 asst. toy DC motors (1.5–24V)	1.1	4.95	4.49
149649	GB193	5 asst. AC/DC fans (photo above)	4.5	7.95	6.95

Hardware Assortments



• 2-56 • 4-40 • 6-32 • 8-32 • Screws • Plastic
• Nuts • Washers • Steel • Brass • Lock Washers • Aluminum

Part No.	Cross Ref. No.	Description	Wt. (lbs.)	1	10	25
171571	GB149*	1 lb. (500 pcs) asst. types of screws, nuts, washers & lock washers	1.0	$5.95	$5.35	$4.79
171635	GB149LB*	3 lbs. (1400 pcs) asst. types; same as P/N 171571 (above)	3.0	12.95	11.49	9.95

Spacers and Standoffs

• Round • Hex • Aluminum • Brass • Steel • Plastic • Nylon

Part No.	Cross Ref. No.	Description	Wt. (lbs.)	1	10	25
166481	GB440	100 asst. 4-40 spacers/standoffs	0.5	$6.95	$6.25	$5.59
166490	GB632	100 asst. 6-32 spacers/standoffs	0.5	6.95	6.25	5.59
55968	GB140	100 asst. 4-40, 6-32, 8-32 round/ hex, alum/brass/nylon spacers	0.3	7.95	6.95	6.25
135423	GB140LB*	1 lb. (310 pcs) same as P/N 55968	1.0	17.95	15.95	13.95

Schwab's School Selection

$55.55 Value



What's your suggestion?

Jameco's nine most popular Grab Bags (highlighted on this page), all individually bagged. North Dakota Engineer, Loren Schwab, recommended this selection of products as a standard item. He also recommended a 20-drawer component cabinet with labels (81701 photo above) for storage.

Includes: Ceramic and electrolytic capacitors, diodes, transistors, potentiometers, switches, LEDs, 1/4W resistors, spacers and standoffs.

Part No.	Cross Ref. No.	Description	Wt. (lbs.)	1	10
163213	GB197	Schwab's School Selection	3.3	$39.95	$34.95
81701	CAB20	20-drawer component cabinet	4.7	15.95	13.95

Surprise Component Grab Bag

Our Best Seller!

SALE

Axial and radial electrolytics, monolithic, dipped silver mica and mylar capacitors, connectors, sockets, thermistors, LEDs, resistor networks, diodes, ICs, standoffs, transistors, oscillator/resonators, inductors, crystals, resistors, pots and switches (1075 pcs).



Part No.	Cross Ref. No.	Description	1	10	25
135263	GB191LB*	3 lbs. electronic components	$14.95	$11.21	$7.85

Part Number Color Code: New Sale Refurbished Closeout

Kits include the Most Popular Components and a Cabinet with extra drawers for your Customized Expansion



81875 (Capacitor Kit)

Each Kit includes a 20-Drawer Component Cabinet (81701), 20 clear plastic drawers (85454), 20 clear dividers (85446), 30 adhesive labels for drawers to identify parts in kit, and all the Electronic Components listed in each kit.

20-drawer component cabinet with every kit!

- Cabinet size: 6.0"L x 15.0"W x 7.9"H
- Drawer size: 5.5"L x 2.7"W x 1.5"H
- Cabinet is wall-mountable or free standing
- Cabinet: ABS-Black
- Weight: 4.6 to 6.4 lbs.

Each Refill Package includes all Electronic Components listed in each kit and each group of Components separately packaged.

Need a refill? Just call 1-800-831-4242



108433 (Hardware Kit)

1/2-Watt Single Turn Cermet Pot Kit

SAVE $21

See page 22 (63P Series) for photos and specs.

Includes 100 pcs. (10 values) 1/2-watt Linear Taper Potentiometer

10 each	10 each	10 each	10 each	10 each
63P500Ω	63P5kΩ	63P500kΩ	63P1kΩ	63P50kΩ
63P2kΩ	63P20kΩ	63P1MΩ	63P10kΩ	63P100kΩ

Part No.	Description	Wt. (lbs.)	1	10
85032	100 pcs. single turn Pot kit	4.9	**$59.95**	**$53.95**

3/4-Watt 15 Turn Cermet Pot Kit

SAVE $35

See page 22 (43P Series) for photos and specs.

Includes 100 pcs. (10 values) 3/4-watt Linear Taper Potentiometer

10 each	10 each	10 each	10 each	10 each
43P500Ω	43P5kΩ	43P500kΩ	43P1kΩ	43P50kΩ
43P2kΩ	43P20kΩ	43P1MΩ	43P10kΩ	43P100kΩ

Part No.	Description	Wt. (lbs.)	1	10
85041	100 pcs. 15 turn Pot kit	4.9	**$79.95**	**$71.95**

Switch Assortment Kit

SAVE $53

See pages 69 & 72 for photos and specs.

Includes 150 pcs. (15 types) PB, Slide, Dip & Toggle Switches

10 each	10 each	10 each	10 each	10 each
206-4	JMT121	JMT223	MPC221	MS103
206-8	JMT123	MPC121	MPC223	SDTX620K
JMT113	JMT221	MPC123	MS102	SW153

Part No.	Description	Wt. (lbs.)	1	10
85059	150 pcs. Switch kit	5.0	**$89.95**	**$80.95**

Hardware and Spacer Assortment Kit

SAVE $31

Includes 2400 pcs. (24 types) Spacers, Nuts, Flat, Tooth & Lock Washers and Slotted PH Screws

100 each	100 each	100 each	100 each	100 each	100 each
Spacers	Hex nuts	Flat,	Int. tooth,	Split lock	PH machine screws
—	2-56	—	—	#2	2-56 x 1/4, —
4-40	4-40	#4	#4	#4	4-40 x 1/4, 1/2
6-32	6-32	#6	#6	#6	6-32 x 1/4, 1/2
8-32	8-32	#8	#8	#8	8-32 x 3/8, 1/2

Part No.	Description	Wt. (lbs.)	1	10
108433	2400 pcs. Hardware kit	7.5	**$59.95**	**$53.95**
130497	Refill for 108433 (2400 pcs.)	2.7	**39.95**	**35.95**

SALE

Ceramic Disc Capacitor Kit

SAVE $19

Includes 520 pcs. (10 values) 50v ±20% Ceramic Disc Capacitors

20 each	20 each	20 each	100 each	100 each
10pF	47pF	470pF	.022µF	.01µF
22pF	100pF	.001µF	.047µF	.1µF

Part No.	Description	Wt. (lbs.)	1	10
81859	520 pcs. Ceramic Capacitor kit	5.0	**$29.95**	**$26.95**
130232	Refill for 81859 (520 pcs.)	0.3	**14.95**	**13.49**

Monolithic Ceramic Capacitor Kit

SAVE $8

Includes 280 pcs. (10 types) 50v ±20% Monolithic Ceramic Capacitors

10 each	10 each	10 each	10 each	100 each
22pF	.001µF	.047µF	.47µF	.01µF
100pF	.0022µF	.22µF	1µF	.1µF

Part No.	Description	Wt. (lbs.)	1	10
171475	280 pcs. Monolithic Cap kit	5.0	**$32.95**	**$29.95**
171483	Refill for 171475 (280 pcs.)	0.3	**17.95**	**15.95**

Radial Electrolytic Capacitor Kit

SAVE $13

Includes 240 pcs. (15 values) ±20% Radial Electrolytic Capacitors

10 each	10 each	20 each	20 each	20 each
100µF @ 50v	1000µF @ 16v	1µF @ 50v	3.3µF @ 50v	22µF @ 50v
220µF @ 25v	2200µF @ 25v	1µF @ 100v	4.7µF @ 50v	47µF @ 50v
470µF @ 25v	3300µF @ 25v	2.2µF @ 50v	10µF @ 50v	100µF @ 25v

Part No.	Description	Wt. (lbs.)	1	10
81867	240 pcs. Radial Cap. kit	5.3	**$29.95**	**$26.95**
130331	Refill for 81867 (240 pcs.)	0.5	**14.95**	**13.49**

Axial Electrolytic Capacitor Kit

SAVE $14

Includes 140 pcs. (10 values) ±20% Axial Electrolytic Capacitors

10 each	10 each	10 each	20 each	20 each
47µF @ 50v	220µF @ 50v	1000µF @ 25v	1µF @ 50v	10µF @ 50v
100µF @ 50v	470µF @ 50v	2200µF @ 16v	4.7µF @ 50v	2.2µF @ 50v

Part No.	Description	Wt. (lbs.)	1	10
81875	140 pcs. Axial Capacitor kit	5.3	**$39.95**	**$35.95**
130340	Refill for 81875 (140 pcs.)	0.6	**24.95**	**22.49**

Mylar Capacitor Kit

SAVE $15

Includes 280 pcs. (10 values) 100v ±10% Mylar Capacitors

10 each	10 each	10 each	10 each	100 each
.001µF	.022µF	.047µF	.47µF	.01µF
.0047µF	.033µF	.22µF	1µF	.1µF

Part No.	Description	Wt. (lbs.)	1	10
81883	280 pcs. Mylar Capacitor kit	5.1	**$34.95**	**$31.49**
130358	Refill for 81883 (280 pcs.)	0.3	**19.95**	**17.95**

Dipped Tantalum Capacitor Kit

SAVE $48

Includes 150 pcs. (15 values) ±20% Dipped Tantalum Capacitors

10 each	10 each	10 each	10 each	10 each
.1µF @ 35v	1µF @ 25v	3.3µF @ 35v	10µF @ 16v	22µF @ 16v
.22µF @ 35v	1µF @ 35v	4.7µF @ 35v	10µF @ 35v	33µF @ 25v
.47µF @ 35v	2.2µF @ 16v	6.8µF @ 35v	15µF @ 25v	47µF @ 25v

Part No.	Description	Wt. (lbs.)	1	10
81841	150 pcs. Tantalum Capacitor kit	4.8	**$74.95**	**$67.95**
130260	Refill for 81841 (150 pcs.)	0.3	**59.95**	**53.95**

SALE

Diode Assortment Kit

SAVE $11

See pages 26-27 for photos and specs.

Includes 420 pcs. (15 types) Zener, Switching and Silicon Rectifiers

10 each	10 each	10 each	10 each	100 each
1N270	1N4001	1N4735	1N5408	1N914
1N751	1N4007	1N4742	C106B1	1N4004
1N3600	1N4733	1N5404	KBP04M	1N4148

Part No.	Description	Wt. (lbs.)	1	10
82587	420 pcs. Diode kit	5.0	**$39.95**	**$35.95**
130366	Refill for 82587 (420 pcs.)	0.3	**24.95**	**22.49**

Transistor Assortment Kit

SAVE $34

See page 24-25 for photos and specs.

Includes 560 pcs. (20 types) NPN, PNP (High/Medium/Low Power) Transistors

10 each	10 each	10 each	10 each	100 each
2N2222A	2N4401	MJE3055T	TIP31A	2N3904
2N2907A	2N4403	MPF102	TIP32A	2N3906
2N3053	2N5951	MPSA06	TIP102	PN2222
2N3055	2N7000	MPSA13	TIP120	PN2907

Part No.	Description	Wt. (lbs.)	1	10
82595	560 pcs. Transistor kit	5.1	**$79.95**	**$71.95**
130374	Refill for 82595 (560 pcs.)	0.4	**64.95**	**58.95**

Kits include the Most Popular Components and a Cabinet with extra drawers for your Customized Expansion

20-drawer component cabinet with every kit!



84970 (IC kit)



84996 (LED Kit)



81832 (Resistor kit)

Need a refill? Just call 1•800•831•4242

Each Kit includes a 20-Drawer Component Cabinet (81701), 20 clear plastic drawers (85454), 20 clear dividers (85446), 30 adhesive labels for drawers to identify parts in kit, and all the Electronic Components listed in each kit.

• Cabinet size: 6.0"L x 15.0"W x 7.9"H • Drawer size: 5.5"L x 2.7"W x 1.5"H • Weight: 4.6–6.4 lbs. • Cabinet: ABS-Black • Cabinet is wall-mountable or free standing

Each Refill Package includes all Electronic Components listed in each kit and each group of Components separately packaged.

7400 Series IC Kit

SAVE $46

Includes 350 pcs. (30 types) 7400 (TTL) Integrated Circuits

10 each	10 each	10 each	10 each	10 each	20 each
7402	7416	7438	74107	74157	7400
7405	7417	7447	74123	74160	7404
7408	7420	7470	74132	74174	7406
7410	7430	7485	74151	74175	7407
7414	7432	7495	74153	74279	7474

Part No.	Description	Wt. (lbs.)	1	10
84953	350 pcs. 7400 IC kit	6.2	**$139.95**	**$125.95**

74LS Series IC Kit

SAVE $43

Includes 420 pcs. (35 types) 74LS (TTL) Integrated Circuits

10 each	10 each	10 each	10 each	20 each
74LS05	74LS73	74LS125	74LS193	74LS00
74LS10	74LS75	74LS139	74LS240	74LS02
74LS11	74LS85	74LS151	74LS244	74LS04
74LS14	74LS86	74LS155	74LS245	74LS08
74LS20	74LS90	74LS157	74LS273	74LS32
74LS30	74LS93	74LS174	74LS373	74LS74
74LS47	74LS123	74LS175	74LS374	74LS138

Part No.	Description	Wt. (lbs.)	1	10
84961	420 pcs. 74LS IC kit	6.7	**$109.95**	**$99.95**
130391	Refill for 84961 (420 pcs.)	2.0	**94.95**	**85.95**

CD4000 Series IC Kit

SAVE $29

Includes 300 pcs. (25 types) CD4000 Series Integrated Circuits

10 each	10 each	10 each	10 each	20 each
CD4015	CD4024	CD4051	CD4093	CD4001
CD4016	CD4027	CD4069	CD4511	CD4011
CD4017	CD4040	CD4070	CD4538	CD4013
CD4020	CD4046	CD4071	CD4543	CD4049
CD4023	CD4050	CD4081	CD4584	CD4066

Part No.	Description	Wt. (lbs.)	1	10
84970	300 pcs. CD4000 series IC kit	6.1	**$79.95**	**$71.95**
130403	Refill for 84970 (300 pcs.)	1.4	**58.95**	**52.95**

Linear Series IC Kit

SAVE $57

Includes 480 pcs. (40 types) Linear Series Integrated Circuits

10 each	10 each	10 each	10 each	20 each
TL072CP	LM337T	LF412CN	ULN2803A	LM317T
TL074CN	LF353N	LMC555CN	NE5532	LM324N
TL082CP	LF356N	LM556N	7808T	LM339N
TL084CN	LM358N	LM723CN	78L12	LM741CN
MAX232CPE	LM386N-1	LM1458N	7815T	LM555CN
LM301N	LM386N-3	LM1488N	7905T	7805T
LM308N	LM393N	LM1489N	7912T	78L05
LM311N	LF411CN	ULN2003A	7915T	7812T

Part No.	Description	Wt. (lbs.)	1	10
84988	480 pcs. Linear IC kit	6.0	**$189.95**	**$169.95**
130411	Refill for 84988 (480 pcs.)	1.3	**174.95**	**156.95**

Low Profile IC Socket Kit

SALE SAVE $17

Includes 300 pcs. (10 types) Solder tail (Tin) IC Sockets

10 each	20 each	20 each	50 each	50 each
22LP	18LP	28LP	8LP	16LP
24SLP	24LP	40LP	14LP	20LP

Part No.	Description	Wt. (lbs.)	1	10
85075	300 pcs. LP IC Socket kit	5.5	**$31.95**	**$27.95**

LEDs & LED Mounting Hardware Kit

SAVE $43

See pages 30 & 31 for photos and specs.

Includes 560 pcs. (20 types) LEDs and mounting hardware

10 each	10 each	10 each	10 each	100 each
BG209	BR5704	XC209G	XC556G	LMH100
BR209	CTP280	XC209Y	XC556Y	LMH200
BY209	HLMT-CL00	XC410G	XC5410	XC209R
BG5704	XC52RG	XC410R	XC5491	XC556R

Part No.	Description	Wt. (lbs.)	1	10
84996	560 pcs. LED & Hardware kit	5.0	**$59.95**	**$49.95**

1/8-Watt Carbon Film Resistor Kit

Includes 540 pcs. (30 values) 1/8-watt 5% Resistors

10 each	10 each	10 each	10 each	10 each	10 each	50 each	50 each
10Ω	330Ω	1.5kΩ	3.3kΩ	15kΩ	47kΩ	100Ω	4.7kΩ
47Ω	390Ω	2Ω	5.1kΩ	22kΩ	470kΩ	220Ω	10kΩ
150Ω	470Ω	2.2kΩ	5.6kΩ	27kΩ	1MΩ	1kΩ	100kΩ
270Ω	680Ω	2.7kΩ	6.8kΩ	33kΩ	10MΩ		

Part No.	Description	Wt. (lbs.)	1	10
108329	540 pcs. 1/8-watt Resistor kit	4.9	**$24.95**	**$22.49**
108302	Refill for 108329 (540 pcs.)	0.2	**12.95**	**11.49**

1/4-Watt Carbon Film Resistor Kit

Includes 540 pcs. (30 values) 1/4-watt 5% Resistors

10 each	10 each	10 each	10 each	10 each	10 each	50 each	50 each
10Ω	330Ω	1.2kΩ	2.7kΩ	15kΩ	47kΩ	100Ω	4.7kΩ
47Ω	390Ω	1.5kΩ	3.3kΩ	20kΩ	470kΩ	220Ω	10kΩ
150Ω	470Ω	2kΩ	5.1kΩ	22kΩ	1MΩ	1kΩ	100kΩ
270Ω	680Ω	2.2kΩ	5.6kΩ	33kΩ	10MΩ		

Part No.	Description	Wt. (lbs.)	1	10
81832	540 pcs. 1/4-watt Resistor kit	4.9	**$27.95**	**$24.95**
103165	Refill for 81832 (540 pcs.)	0.2	**12.95**	**11.49**

1/2-Watt Carbon Film Resistor Kit

Includes 540 pcs. (30 values) 1/2-watt 5% Resistors

10 each	10 each	10 each	10 each	10 each	10 each	50 each	50 each
10Ω	330Ω	1.5kΩ	3.3kΩ	15kΩ	47kΩ	100Ω	4.7kΩ
47Ω	390Ω	2kΩ	5.1kΩ	22kΩ	470kΩ	220Ω	10kΩ
150Ω	470Ω	2.2kΩ	5.6kΩ	27kΩ	1MΩ	1kΩ	100kΩ
270Ω	680Ω	2.7kΩ	6.8kΩ	33kΩ	10MΩ		

Part No.	Description	Wt. (lbs.)	1	10
107879	540 pcs. 1/2-watt Resistor kit	5.1	**$29.95**	**$26.95**
107852	Refill for 107879 (540 pcs.)	0.4	**14.95**	**13.49**

Automobile Power Plug & Cord Assembly

- Screw assembly
- Plugs directly into cigarette lighter
- Accepts .25" x 1.25" fuse
- All include strain relief

SALE


115001


124759

124759: 3' cord pigtail end

Part No.	Description	1	10	100
115001	W/ 5A/250VAC fuse ..	$1.75	$1.49	$.99
124759	W/ 3A/250VAC fuse	1.95	1.65	1.39

Automobile Power Plug Splitter

- Input: cigarette adapter; non-fused
- Splits out into two 5" female automobile type receptacles

SALE



Part No.	Description	1	10	50
123182	Power plug splitter ..	$4.95	$4.49	$3.95

140 & 270-Watt DC-AC Inverters




188293




202016

- Input voltage: 10-15VDC
- Output voltage: 110VAC @ 60Hz
- Battery low shutdown
- Peak power surge capable
- Overload & high grade thermal protection
- Weight: 1.3 lbs.

188293: 140-Watt with cigarette plug
- Size: 5.5"L x 2.6"W x 1.6"H

202016: 270-Watt with cigarette plug & battery clip
- Size: 9.3"L x 4.1"W x 2.2"H

Part No.	Description	1	10	25
188293	Cigarette plug	$49.95	$44.95	$39.95
202016	Cigarette/battery clip	59.95	53.95	48.95

Cobra DC-AC Inverters

- Input voltage: 12VDC
- Output voltage: 115VAC ±5%
- Input connector: automobile power plug
- Overload and thermal protection
- Weight: 2.0 lbs.


202809

202809: 80-Watt
- Output connector: 2-prong receptacle
- Size: 4.1"L x 1.5"W x 1.5"H

NEW

202817: 140-Watt
- Output connector: 3-prong receptacle
- Size: 5.1"L x 2.5"W x 1.5"H


202817

Part No.	Prod. No.	Watts	1	10	25
202809	P2	80 ...	$39.95	$35.95	$32.35
202817	P4	140	44.95	39.95	35.95



Phone 1-800-831-4242

Online www.Jameco.com

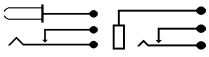
Order Anytime 24x7x365

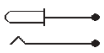
Fax 1-800-237-6948

Male & Female Power Jacks

- Use with mating power plugs, below
- Dimensions do not include barrel

Terminals	Code
Solder eyelet	A
PC board	B
Mounting	**Code**
Panel	C
PCB	D
Panel & PCB	E
Cable	F


Circuit 1 Circuit 2


Circuit 3

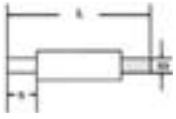

Type 1 Type 2 Type 3 Type 4 Type 5 Type 6 Type 7 Type 8 Type 9 Type 10 Type 11

✳ **Prepackaged: please order in increments of 10, 100 or 1000**

Part Number	Mfr. Cross Ref. No.	Description (Jack)	Dimensions H x W x D (mm)	Type/ Mount	Circuit/ Terminals	Mating Plug (below)	Pricing 1	10	100	1000
101194	PP024	1.3 mm male	6.0 x 6.0 x 9.0	9/D	1/B	1.3 mm female	$.89	$.75	$.65	$.49
101178	PP014	2.1 mm male	10.9 x 9.0 x 14.5	1/D	1/A	2.1 mm female	.49	.44	.39	.35
137672	PP013	2.1 mm male	10.9 x 9.0 x 14.5	6/D	3/A	2.1 mm female	.59	.49	.39	.29
151589	DPJ-02IA	2.1 mm male	13.0 x 12.6 Dia.	8/C	1/A	2.1 mm female	1.09	.93	.79	.69
151554	DPJ-026A	2.1 mm male	15.1 x 8.0 Dia.	7/E	1/A	2.1 mm female	1.49	1.25	1.05	.89
159610	PJ1014A	2.1 mm male	35.8 x 12.6 Dia.	11/F	3/A	2.1 mm female	1.49	1.25	1.09	.89
109428	PJ025PCB	2.5 mm male	8.0 x 12.0 x 9.6	5/D	1/A	2.5 mm female	.39	.32	.25	.19
207714	HEC0470	2.5 mm male	11.0 x 9.0 x 14.5	1/D	1/B	2.5 mm female	.45	.35	.29	.25
101186	PP014A	2.5 mm male	11.0 x 9.0 x 14.5	1/D	1/A	2.5 mm female	.59	.49	.39	.29
102091	PP15A	2.5 mm male	20.4 x 9.3 x 11.7	2/C	1/A	2.5 mm female	✳	.07	.05	.04
151562	DPJ-026	2.5 mm male	15.1 x 8.0 Dia.	7/E	1/A	2.5 mm female	1.25	1.09	.89	.69
159505	PJ1015A	2.5 mm male	35.8 x 12.6 Dia.	11/F	3/A	2.5 mm female	1.25	1.09	.99	.79
202358	HD2388	2.5 mm male	17.0 x 12.0 Dia.	8/C	3/A	2.5 mm female	.89	.75	.65	.49
101143	PJ0352	3.5 mm female	10.0 x 10.0 x 18.5	3/E	2/A	3.5 mm male	.39	.34	.26	.21
109495	PJ035PM	3.5 mm female	10.5 x 9.0 x 8.8	4/C	2/A	3.5 mm male	.39	.35	.25	.19
165729	PJ0354	3.5 mm female	8.9 x 5.7 Dia.	10/C	3/A	3.5 mm male	.69	.59	.49	.39

Male & Female Power Plugs

- Use with mating power jack found in table, above
- Solder eyelets 1mm diameter
- Threaded screw-on housing (strain relief)
- Use with AC/DC wall transformers, pgs 60-62
- Use 24 AWG 2 conductor wire, P/N 100280, to make custom length power cables, pg 88
- Shield crimp tabs




Female (1)


Male (2)


Strain Relief (A)


Female Right Angle (B)


Hard Plastic Strain Relief (C)

Part Number	Mfr. Cross Ref. No.	Description Plug ID x OD (mm)	Dimensions (mm) S(shaft) x L x ID(strain relief)	Type	Pricing 1	10	100	1000
71191	PP137	1.3 mm x 3.5 mm female plug	9.6 x 43.9 x 4.8 (black)	1/A	$.69	$.59	$.49	$.39
191484	PP049W	2.1 mm x 5.5 mm female plug	9.6 x 43.9 x 4.5 (white)	1/A	.69	.59	.49	.39
28759	PP049	2.1 mm x 5.5 mm female plug (P205)	8.5 x 41.4 x 4.6 (black)	1/A	.59	.49	.39	.29
147328	PP049L	2.1 mm x 5.5 mm female plug (P205L)	14.0 x 46.4 x 4.6 (black)	1/A	.69	.59	.49	.39
138587	PJ021R	2.1 mm x 5.5 mm female right angle plug	12.0 x 22.5 x 3.9 (black)	1/B	.79	.63	.55	.49
190537	PP109S	2.5 mm x 5.5 mm female plug (P206S)	9.0 x 43.5 x 4.8 (black)	1/A	.39	.32	.29	.19
28767	PP109	2.5 mm x 5.5 mm female plug (P206)	10.1 x 45.4 x 4.3 (black)	1/A	.59	.49	.39	.33
191492	PP109W	2.5 mm x 5.5 mm female plug	10.1 x 45.4 x 4.5 (white)	1/A	.59	.49	.43	.35
147336	PP109L	2.5 mm x 5.5 mm female plug (P206L)	13.6 x 47.5 x 4.8 (black)	1/A	.59	.49	.43	.35
168241	PP109N	2.5 mm x 5.5 mm female plug	13.7 x 36.5 x 3.9 (black)	1/C	.59	.49	.43	.35
101135	PJ1025	2.5 mm male plug (P201)	11.1 x 49.0 x 4.3 (black)	2/A	.59	.49	.43	.35
147459	PJ1025L	2.5 mm male plug (P201L)	10.5 x 48.0 x 5.0 (black)	2/A	.45	.41	.36	.33
101151	PJ1035	3.5 mm male plug (P202)	13.8 x 51.8 x 4.2 (black)	2/A	.49	.45	.35	.29
147344	PJ1035L	3.5 mm male plug (P202L)	14.1 x 51.0 x 5.2 (black)	2/A	.69	.59	.49	.39

Panel Mount Fuse Holders

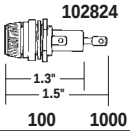
.25" x 1.25" Standard Thumbscrew Cap

- Straight solder terminal; 10A @ 250VAC

SALE




18702



Part No.	Approvals	Size	Mounting Hole	1	10	100	1000
120993	—	1.95"L x 0.71"Dia.	0.58"Dia.	$.79	$.69	$.55	$.49
18702	UL/CSA	2.05"L x 0.71"Dia.	0.58"Dia. x 0.52" Flat (D-style)	1.19	.99	.85	.79

5mm x 20mm Miniature Tumbscrew Cap

- Straight solder terminal; Size: 1.5"L x 0.6"Dia.

SALE

Part No.	Approvals	Current	Mounting Hole	1	10	100	1000
150463	—	6A @ 250VAC	0.5"Dia. x 0.43"Flat	$.89	$.75	$.65	$.49
102824	UL/CSA	10A @ 250VAC	0.5"Dia.	.99	.85	.72	.59

Resettable Fuses

Resettable fuses improve reliability and lower costs. Polymer positive temperature coefficient (PPTC) fuses have provided designers in numerous industries a new tool in their battle to improve product quality & performance. As PPTC fuses are resettable, warranty costs & service calls are largely avoided.

RA Series

- Rated voltage: (V_{MAX}, V): 60
- Max. current: (I_{MAX}, A): 40
- Lead length (D): 7.6mm (min.)
- Thickness (E): 3.1mm (min.)

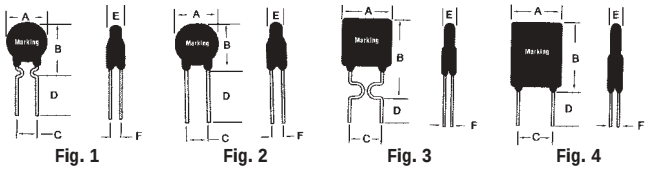


Fig. 1 Fig. 2 Fig. 3 Fig. 4

Part Number	Mfr. Cross Ref. No.	Hold Current (I_H, A)	Trip Current (I_T, A)	Max. Time to Trip (@5xI_H)	Fig.	Size (mm) A	B	C	F	Pricing 1	10	100	500
199814	RA010-60	0.10	0.20	4.0	1	7.4	12.7	5.1	1.1	$.47	$.44	$.41	$.38
199822	RA017-60	0.17	0.34	3.0	1	7.4	12.7	5.1	1.1	.47	.44	.41	.38
199831	RA020-60	0.20	0.40	2.2	1	7.4	12.2	5.1	1.1	.47	.44	.41	.38
199849	RA025-60	0.25	0.50	2.5	1	7.4	12.7	5.1	1.1	.47	.44	.41	.38
199857	RA030-60	0.30	0.60	3.0	1	7.4	13.0	5.1	1.1	.47	.44	.41	.38
199865	RA040-60	0.40	0.80	3.8	1	7.6	13.5	5.1	1.1	.51	.48	.45	.42
199873	RA050-60	0.50	1.00	4.0	1	7.9	13.7	5.1	1.1	.51	.48	.45	.42
199881	RA065-60	0.65	1.30	5.3	1	9.7	14.5	5.1	1.1	.52	.49	.46	.43
199890	RA075-60	0.75	1.50	6.3	1	10.4	15.2	5.1	1.1	.52	.49	.46	.43
199902	RA090-60	0.90	1.80	7.2	1	11.7	15.8	5.1	1.1	.53	.50	.48	.45
199911	RA110-60	1.10	2.20	8.2	2	13.0	18.0	5.1	1.4	.60	.57	.55	.46
199929	RA135-60	1.35	2.70	9.6	2	14.5	19.6	5.1	1.4	.61	.58	.56	.47
199937	RA160-60	1.60	3.20	11.4	2	16.3	21.3	5.1	1.4	.63	.59	.57	.48
199945	RA185-60	1.85	3.70	12.6	2	17.8	22.9	5.1	1.4	.65	.62	.59	.50
199953	RA250-60	2.50	5.00	15.6	2	21.3	26.4	10.2	1.4	.76	.73	.68	.53
199961	RA300-60	3.00	6.00	19.8	2	24.9	30.0	10.2	1.4	.81	.77	.72	.56
199970	RA375-60	3.75	7.50	24.0	2	28.5	33.5	10.2	1.4	.83	.78	.73	.56

RB Series

- Rated voltage: (V_{MAX}, V): 30
- Max. current (I_{MAX}, A): 40
- Lead length (D): 7.6mm (min.)
- Thickness (E): 3.0mm (min.)

Part Number	Mfr. Cross Ref. No.	Hold Current (I_H, A)	Trip Current (I_T, A)	Max. Time to Trip (@5xI_H)	Fig.	Size (mm) A	B	C	F	Pricing 1	10	100	500
199988	RB090-30	0.90	1.80	5.9	3	7.4	12.2	5.1	0.9	$.52	$.49	$.46	$.42
199996	RB110-30	1.10	2.20	6.6	3	7.4	14.2	5.1	0.9	.52	.49	.46	.42
200002	RB135-30	1.35	2.70	7.3	3	8.9	13.5	5.1	0.9	.52	.49	.46	.42
200011	RB160-30	1.60	3.20	8.0	3	8.9	15.2	5.1	0.9	.56	.53	.51	.44
200029	RB185-30	1.85	3.70	8.7	3	10.2	15.7	5.1	0.9	.59	.57	.55	.47
200037	RB250-30	2.50	5.00	10.3	3	11.4	18.3	5.1	0.9	.63	.59	.57	.48
200045	RB300-30	3.00	6.00	10.8	4	11.4	17.3	5.1	1.2	.67	.64	.62	.51
200053	RB400-30	4.00	8.00	12.7	4	14.0	20.1	5.1	1.2	.81	.75	.71	.58
200061	RB500-30	5.00	10.00	14.5	4	14.0	24.9	10.2	1.2	.85	.80	.75	.62
200070	RB600-30	6.00	12.00	16.0	4	16.5	24.9	10.2	1.2	.89	.84	.79	.61
200088	RB700-30	7.00	14.00	17.5	4	19.1	26.7	10.2	1.2	.92	.88	.83	.64
200096	RB800-30	8.00	16.00	18.8	4	21.6	29.2	10.2	1.2	.99	.92	.86	.68
200109	RB900-30	9.00	18.00	20.00	4	24.1	29.7	10.2	1.2	1.05	.98	.90	.73

Fuse Clips



102859



119280



102841

For 5mm Miniature

102859: Size: .37"H x .25"W x .21"D x .19"P
119280: Size: .33"H x .25"W x .20"D x .21"P

For .25" Standard PCB Type

102841: Size: .32"H x .27"W x .25"D x .23"P

✳**Prepackaged: order in increments of 10, 100 or 1000**

Part No.	Description		1	10	100	1000
102859	Front leads	✳	$.12	$.09	$.05	
119280	Side leads	✳	.09	.08	.07	
102841	Front leads (10A) ..	✳	.09	.08	.07	

In-Line Fuse Holders

- Built-in spring ensures good fuse connection
- Vinyl covered wire with stranded copper center
- Wire color: red; except for P/N 108783 orange



102867

.25" x 1.25" Standard

Part No.	AWG	Wire Lengths	Body Size(L)	Body Color	1	10	100
109321	22	3.5/3"	2.4"	Black	$.59	$.53	$.42
102867	20	3/3"	2.2"	White ..	.59	.53	.42
151917	18	6/6"	2.4"	White ..	.89	.80	.72
108783	16	21/26"	2.2"	Black ..	.89	.78	.59
108791	14	19/25"	2.5"	Black	1.45	1.29	1.16

5mm x 20mm Miniature

Part No.	AWG	Wire Color	Body Size (L)	1	10	100
109330	20	Red	1.8"	$.59	$.49	$.39

.25" x 1.25" Standard Fuses

Slow Blow Fuses (250V) MDL/3AG Fuses



Part No.	Amps	Mfr.	1	10	100	1000
25654	250mA	Various	$.54	$.42	$.35	$.27
25689	500mA	Various ...	.54	.42	.35	.27
25638	1 amp	Various ...	.54	.42	.35	.27
25646	2 amp	Various ...	.54	.42	.35	.27
69534	3 amp	Various ...	.55	.45	.35	.29
25671	5 amp	Various ...	.54	.42	.35	.27
69569	10 amp	Various ...	.54	.42	.35	.27

Fast Acting Fuses (250V) AGC/3AG Fuses



- For ML10/13 fuse holder terminal blocks, pg 80

✳**Prepackaged: order in increments of 10, 100 or 1000**

Part No.	Amps	Mfr.	1	10	100	1000
69403	250mA	Various ..... ✳	$.20	$.18	$.16	
10410	500mA	Various ..... ✳	.20	.18	.16	
197510	630mA	Various ..... ✳	.20	.18	.16	
10372	1 amp	Various ..... ✳	.20	.18	.16	
197528	1.6 amp	Various ..... ✳	.20	.18	.11	
10381	2 amp	Various ..... ✳	.20	.18	.16	
197536	2.5 amp	Various ..... ✳	.20	.18	.16	
69438	3 amp	Various ..... ✳	.20	.18	.13	
197544	4 amp	Various ..... ✳	.20	.18	.16	
10401	5 amp	Various ..... ✳	.20	.18	.16	
197552	6.3 amp	Various ..... ✳	.20	.18	.16	
69462	10 amp	Various ..... ✳	.23	.22	.18	
186301	16 amp	Various ..... ✳	.20	.18	.16	

5mm x 20mm Miniature Fuses

Slow Blow Fuses (250V) GMA Fuses



✳**Prepackaged: order in increments of 10, 100 or 1000**

Part No.	Amps	Mfr.	1	10	100	1000
197501	500mA	Various ✳	$.29	$.26	$.23	
197464	1 amp	Various ✳	.29	.26	.23	
197472	2 amp	Various ✳	.35	.32	.29	
197481	3.15 amp	Various ✳	.35	.32	.29	
197499	5 amp	Various ✳	.35	.32	.29	

Fast Acting Fuses (250V) GMA Fuses



- Recommended for new designs

✳**Prepackaged: order in increments of 10, 100 or 1000**

Part No.	Amps	Mfr.	1	10	100	1000
103886	250mA	Various ✳	$.20	$.18	$.16	
102040	500mA	Various ✳	.20	.18	.16	
103907	1 amp	Various ✳	.20	.18	.16	
103915	2 amp	Various ✳	.20	.18	.16	
103923	3 amp	Various ✳	.20	.18	.16	
103931	5 amp	Various ✳	.20	.16	.11	

5mm x 20mm Miniature Low Profile Fuse Holder



- Accepts 5 x 20mm fuses
- 10A @ 250VAC
- Size: 1.4"L x 0.6"Dia.
- D Style mounting hole: 1 ea. 0.5"Dia x .46" flat

Part No.	Description	1	10	100
102832	Fuse holder UL/CSA	$1.75	$1.57	$1.39

We'll match the advertised price of any like product.

Jameco's Low-Price Guarantee

Rocker Switches

AS Series Snap-In Rocker Switches

- Panel mount • Initial contact resistance: 10mΩ max. • Insulation resistance: 10,000MΩ min.
- Panel cut-hole: 0.73"L x 0.36"W • Dielectric strength: 1000Vrms min. between terminals



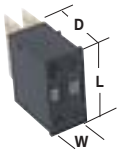
Part Number	Product Number	Pins	Type ( ) Momentary	Dimensions L	W	D	Lead Spacing A	B	C	Contact Rating	Lead Type	Pricing 1	10	100	250
191038	AS37S010010	3	SPDT (on)-off-(on)	0.77"	0.41"	0.60"	—	0.19"	—	2A @ 250VAC	Solder	$2.85	$2.55	$2.29	$2.05

FM Series Illuminated/Non-Illuminated Rocker Switches

- Panel mount • Insulation resistance: 1000MΩ min. • Initial contact resistance: 20mΩ max.
- Panel cut-hole: 0.76"L x 0.51"W
- Dielectric strength: 1500Vrms min. between terminals
- * **191118 (Illuminated):** Dielectric strength: 2500Vrms between terminals



Part Number	Product Number	Pins	Type ( ) Momentary	Dimensions L	W	D	Lead Spacing A	B	C	Contact Rating	Lead Type	Pricing 1	10	100	100
191071	FMC12A2200000	3	SPST on-off	0.74"	0.50"	0.49"	—	0.28"	—	6A @ 250VAC	Solder	$.89	$.80	$.72	$.65
191100	FMC92A2200000	3	SPDT on-off-on	0.74"	0.50"	0.49"	—	0.28"	—	6A @ 250VAC	Solder	.75	.67	.60	.55
191118	FML18A276A000*	3	SPDT on-off	0.74"	0.50"	0.49"	—	0.28"	—	6A @ 250VAC	Quick discon.	1.49	1.35	1.19	1.05

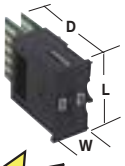


Pushbutton Binary Coded Decimal (BCD) Switch

26788 (2 switches shown)

Thumbwheel Binary Coded Decimal (BCD) Switch

(2 switches shown) **26817**



Pushbutton and Thumbwheel Switch Specifications:

- Contact resistance: 100mΩ max.
- 1/16" maximum panel thickness
- Gold plated BE-CU alloy contacts
- 0.15A @ 50VAC/28VDC
- Switches snap together
- Break before make
- Operating temperature: -40°C to +85°C
- Continuous load: 1 amp max.
- Front snap-tab mounting

Part Number	Mfr. Cross Ref. No.	Description	Size (L" x W" x D")	Character Height	Pricing 1	10	50	100
26788	MX72	10-position pushbutton	1.3 x 0.4 x 1.0	0.19"	$4.95	$3.95	$2.95	$2.25
26761	MXEP2	End plates for MX72	—	—	1.15	.99	.89	.79
26817	MX83	10-position thumbwheel	1.1 x 0.1 x 1.5	0.25"	3.95	3.15	2.39	1.69
26770	MXEP3	End plates for MX83	—	—	1.15	.99	.90	.80

Rocker and Lever Type Switches

- Contact rating: 5A @ 120VAC; 2A @ 250VAC, except P/N 196154: 15A @125VAC; 10A @ 250VAC
- Operating temp.: -30˚ to 85˚C
- Electrical life: 50,000 make and break cycles at full load
- Contact resistance: 10milliΩ typical
- Dielectric strength: 1000 VRMS @ sea level
- Insulation resistance: 10MΩ min., except P/N 196154: 100MΩ min.



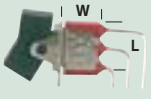
181788



196154



202497



140530 (Vertical)



155045 (Horizontal)

SALE



163344



203490

Part No.	Mfr Cross Ref. No.	Pins	Type	Dimensions (ins.) L	W	D	Lead Spacing	Lead Type	Pricing 1	10	100	1000
181788	R13-121A	2	SPST on-off	.88	.47	.71	N/A	Panel mt. solder eyelet	$1.25	$1.05	$.89	$.75
196154	R30NSA	2	SPST on-off	1.07	.42	.77	N/A	Panel mount quick disconnect	1.25	1.06	.89	.75
202497	526VBU	2	SPST on-off	.89	.49	.64	N/A	Panel mount quick disconnect	1.25	.99	.75	.55
140530	CK7101	3	SPDT on-on	.50	.50	.27	.150"	Right angle PC (vert)	1.49	1.25	1.09	.89
155045	CK7101A3	3	SPDT on-on	.50	.50	.27	.185"	Right angle PC (horz)	.75	.65	.59	.52
163344	CKD103J5W	3	SPDT on-off-on	.67	.47	.59	N/A	Panel mt. solder eyelet	.99	.89	.79	.69
203490*	MRT85	4	DPST on-off	.74	.50	.55	N/A	Panel mount quick disconnect	1.95	1.75	1.59	1.45

Replacement Switches for AT-Style Computer Cases

PC Pushbutton Switch

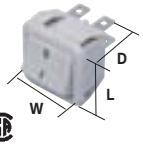
- Alternate action double pole switch
- Contacts rated at 250VAC
- UL/CSA/VDE approved
- Size: 0.9"L x 0.7"W x 0.9"D



Part No.	Description	Current	1	10	100
127044	PC push button	7.5A ..	$2.49	$1.89	$1.39
174238	PC push button	8A	2.59	1.94	1.35

PC Rocker Switch

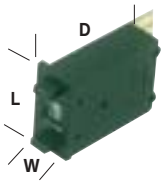
- For mini-tower cases
- DPST
- Contacts rated at 250VAC
- UL/CSA approved
- Size: 0.9"L x 1.2"W x 1.4"D



Part No.	Description	Current	1	10	100
127028	PC rocker	10A ..	$2.15	$1.95	$1.29

Mini Pushbutton BCD Switch

- Operating temperature: -10˚C to +65˚C
- 28VDC @ 10A
- 0.12" character height
- Switches snap together
- Break before make
- Positive logic ("0" all open output)
- Size: .59"L x .30"W x 1.0"D



Part Number	Mfr Cross Ref. No.	Description	Pricing 1	10	100
136557	MX061	10 pos. straight	$3.79	$3.41	$3.06

For Proximity Switches see page 79



Call 1-800-831-4242 for details today

Corporate Customers

Opening an account is easy!!

Miniature Toggle Switches

- Mounting hole diameter: 1/4"

Includes: Mounting hardware



Fig. 1

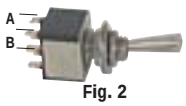


Fig. 2

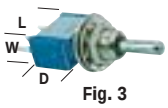


Fig. 3

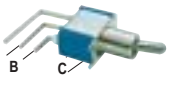


Fig. 4

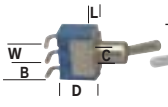


Fig. 5

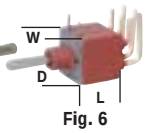


Fig. 6

Part Number	Mfr. Cross Ref. No.	Fig.	Pins	Type ( ) Momentary	Dimensions L" x W" x D"	Lead Spacing A"	B"	C"	Contact Rating	Lead Type	Lever Type	Pricing 1	10	100	250	OEM 1000
76523	JMT113	1	2	SPST on-off	.52 x .32 x .38	—	.185	—	6A @ 125VAC & 3A @ 250VAC	Solder lugs	Round	**$1.15**	**$1.03**	**$.93**	**$.75**	**$.65**
21936	JMT123	3	3	SPDT on-on	.52 x .32 x .38	—	.185	—	5A @ 125VAC & 2A @ 250VAC	Solder lugs	Round	**1.15**	**1.03**	**.93**	**.75**	**.65**
21910	JMT121	3	3	SPDT on-off-on	.52 x .32 x .38	—	.185	—	5A @ 125VAC & 2A @ 250VAC	Solder lugs	Round	**1.15**	**.99**	**.89**	**.77**	**.69**
22832	LFH123	3	3	SPDT on-on	.52 x .28 x .36	—	.185	—	5A @ 125VAC & 2A @ 250VAC	Solder lugs	Flat	**1.15**	**1.05**	**.95**	**.85**	**.75**
75854	SWM132	3	3	SPDT on-on	.52 x .32 x .38	—	.185	—	6A @ 125VAC & 3A @ 250VAC	Solder lugs	Round	**1.15**	**1.05**	**.95**	**.69**	**.55**
75889	SWM129	3	3	SPDT (on)-off-(on)	.52 x .32 x .38	—	.185	—	6A @ 125VAC & 3A @ 250VAC	Solder lugs	Round	**1.29**	**1.15**	**.95**	**.69**	**.55**
26331	MPC123	3	3	SPDT on-on	.52 x .32 x .37	—	.185	—	6A @ 125VAC & 3A @ 250VAC	PC	Round	**1.15**	**1.03**	**.93**	**.79**	**.65**
26315	MPC121	3	3	SPDT on-off-on	.52 x .32 x .37	—	.185	—	5A @ 125VAC & 2A @ 250VAC	PC	Round	**1.29**	**1.19**	**.90**	**.81**	**.73**
71597	SWM148	4	3	SPDT on-on	.52 x .32 x .38	—	.185	.20	5A @ 125VAC & 2A @ 250VAC	PC right angle	Round	**1.15**	**1.04**	**.83**	**.62**	**.43**
75871	SWM145	5	3	SPDT on-on	.32 x .52 x .38	—	.185	.20	6A @ 125VAC & 3A @ 250VAC	PC right angle	Round	**1.15**	**.95**	**.75**	**.56**	**.51**
22841	LFH221	2	6	DPDT on-off-on	.52 x .52 x .38	.20	.185	—	3A @ 125VAC & 1A @ 250VAC	Solder lugs	Flat	**1.29**	**1.15**	**1.05**	**.95**	**.85**
21979	JMT223	2	6	DPDT on-on	.52 x .52 x .38	.20	.185	—	5A @ 125VAC & 2A @ 250VAC	Solder lugs	Round	**1.29**	**1.10**	**.95**	**.85**	**.45**
22859	LFH223	2	6	DPDT on-on	.52 x .52 x .38	.20	.185	—	5A @ 125VAC & 2A @ 250VAC	Solder lugs	Flat	**1.09**	**.99**	**.89**	**.79**	**.71**
105814	SWA208	2	6	DPDT on-(on)	.52 x .52 x .38	.20	.185	—	5A @ 125VAC & 2A @ 250VAC	Solder lugs	Round	**1.75**	**1.57**	**1.25**	**.95**	**.69**
75900	SWM133	2	6	DPDT on-on	.52 x .52 x .38	.20	.185	—	6A @ 125VAC & 3A @ 250VAC	Solder lugs	Round	**1.29**	**1.15**	**1.05**	**.80**	**.69**
21952	JMT221	2	6	DPDT on-off-on	.52 x .52 x .38	.20	.185	—	6A @ 125VAC & 3A @ 250VAC	Solder lugs	Round	**1.29**	**1.16**	**1.04**	**.89**	**.75**
75951	SWM130	2	6	DPDT (on)-off-(on)	.52 x .52 x .38	.20	.185	—	6A @ 125VAC & 3A @ 250VAC	Solder lugs	Round	**1.29**	**1.16**	**1.04**	**.89**	**.75**
26366	MPC223	2	6	DPDT on-on	.52 x .52 x .38	.20	.185	—	5A @ 125VAC & 2A @ 250VAC	PC	Round	**1.29**	**1.16**	**.93**	**.69**	**.49**
26358	MPC221	2	6	DPDT on-off-on	.52 x .52 x .38	.20	.185	—	5A @ 125VAC & 2A @ 250VAC	PC	Round	**1.29**	**1.16**	**1.04**	**.89**	**.75**
202964	WI24	6	6	DPDT on-off-(on)	.50 x .50 x .46	.15	.15	.20	6A @ 125VAC & 3A @ 250VAC	PC right angle	Round	**1.29**	**1.16**	**1.04**	**.95**	**.85**

Subminiature Toggle Switches

- Mounting hole diameter: 7/32"
- Pre-tinned leads
- Metal construction

Includes: Mounting hardware

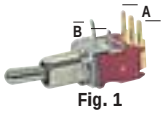


Fig. 1

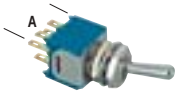


Fig. 2

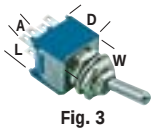


Fig. 3

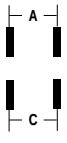
Part Number	Mfr. Cross Ref. No.	Fig.	Pins	Type	Dimensions L" x W" x D"	Lead Spacing A"	B"	Contact Rating	Lead Type	Lever Type	Pricing 1	10	100	250	OEM 1000
106067	SWP124	1	3	SPDT on-on	.25 x .33 x .40	.20	.10	30mA @ 5VDC	PC right angle	Round	**$1.49**	**$1.29**	**$1.10**	**$.99**	**$.89**
72160	SW1501	2	2	SPST on-off	.33 x .21 x .33	.10	—	1.5A @ 250VAC	Solder lugs	Round	**1.25**	**1.12**	**.89**	**.69**	**.55**
75969	SWM136	2	3	SPDT on-on	.33 x .21 x .33	.10	—	3A @ 125VAC	Solder lugs	Round	**1.15**	**.99**	**.89**	**.69**	**.55**
72557	SW1502	2	3	SPDT on-off-on	.33 x .21 x .33	.10	—	1.5A @ 250VAC	Solder lugs	Round	**1.15**	**.99**	**.83**	**.62**	**.43**
138907	SW1503	2	6	DPDT on-off-on	.36 x .37 x .33	.10	—	3A @ 120VAC	Solder lugs	Round	**1.29**	**1.05**	**.85**	**.65**	**.55**
75977	SWM137	3	6	DPDT on-on	.33 x .37 x .33	.17	.10	1.5A @ 250VAC	Solder lugs	Round	**1.29**	**1.05**	**.85**	**.65**	**.55**

Full Size Toggle Switches

- Panel mount
- Mounting hole diameter: 1/2"
- Full-size round lever
- Keyed plate indicates switch position
- Medium duty

Includes: Mounting hardware and on/off plate

2-pin or 4-pin



6-pin

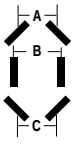




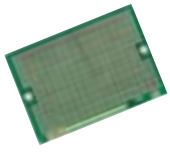
Fig. 1

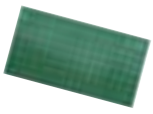


Fig. 2

Part Number	Mfr. Cross Ref. No.	Fig.	Pins	Type	Dimensions L" x W" x D"	Lead Spacing A"	B"	C"	Contact Rating	Lead Type	Lever Type	Pricing 1	10	100	250	OEM 1000
76241	SWM128	1	2	SPST on-off	1.00 x .56 x .52	.23	—	—	4A @ 125VAC & 2A @ 250VAC	Solder lugs	Round	**$1.25**	**$1.12**	**$.99**	**$.89**	**$.79**
158060	JKN32	1	4	DPST on-off	1.00 x .56 x .52	.23	—	.23	4A @ 125VAC & 2A @ 250VAC	Solder lugs	Round	**1.15**	**1.05**	**.95**	**.85**	**.75**
76259	SWM126	1	6	DPDT on-on	1.12 x .77 x .60	.30	.60	.40	5A @ 125VAC & 3A @ 250VAC	Solder lugs	Round	**1.49**	**1.29**	**1.05**	**.85**	**.69**
158078	JKN3CC	1	6	DPDT on-on	1.19 x .76 x .73	.44	.59	.44	10A @ 125VAC & 6A @ 250VAC	Screw lugs	Round	**1.49**	**1.29**	**1.05**	**.85**	**.69**
76232	SWM125	2	2†	SPST on-off	1.00 x .53 x .51	—	—	—	6A @ 125VAC & 3A @ 250VAC	6" lead wire	Round	**1.49**	**1.34**	**1.19**	**1.09**	**.99**

† Lead Wires





For our selection of Prototyping Boards see page 92



See the yellow highlighted items.

Special Jameco Values!

Details on page 5

Part Number Color Code
New Sale Refurbished Closeout

Pushbutton Switches

- Contact rating: 3A @ 125VAC
- 2-pins
- Lead type: solder terminal

Mountain Switch


Figure 1


Figure 2


Figure 3

Miniature Soft Touch Switches

Part No.	Product No.	Fig.	Type ( ) Momentary	Dimensions	Lead Spacing	Thread Diameter	Button Color	Pricing 1	10	100	1000
164494	DS450R	1	SPST off-on	1.2"L x .59"Dia.	.175"	.387"	Red	$1.79	$1.73	$1.69	$1.59
164486	DS463R	1	SPST off-(on)	1.2"L x .59"Dia.	.175"	.387"	Red	2.49	2.29	2.09	1.89
164523	DS466R	2	SPST off-(on)	1.24"L x .60"Sq.	.160"	.383"	Red	2.49	2.29	2.09	1.89
196921	196921†	2	SPST off-on	1.6"L x 1.6"Sq.	.189"	.450"	Red	1.95	1.55	1.19	.83
164558	DS471R	3	SPST off-(on)	1.24"L x .75"Sq.	.160"	.387"	Red	1.59	1.49	1.45	1.39


Figure 4


Figure 5

Standard Touch Switches

Part No.	Product No.	Fig.	( ) Momentary	Dimensions	Lead Spacing	Thread Diameter	Button Color	Pricing 1	10	100	1000
164566	MS402R	4	SPST off-(on)	.73"L x .22"Dia.	.078"	.190"	Red	$1.49	$1.39	$1.25	$1.15
164582	DS016B	5	SPST off-(on)	.88"L x .46"Dia.	.220"	.354"	Black	1.49	1.39	1.25	1.15
164611	DS131B	6	SPST off-(on)	.97"L x .80"Dia.	.366"	.647"	Black	1.59	1.45	1.29	1.15
164638	MS3120R	7	SPST off-(on)	1.1"L x .31"Dia.	.175"	.268"	Red	.89	.79	.69	.55
164671	NS801MOB	8	SPST off-(on)	1.1"L x .59"Dia.	.213"	.468"	Black	2.49	2.25	1.95	1.75
106112	DS412R*	9	SPST off-(on)	.63"L x .66"Dia.	.275"	.750"	Red	1.19	.99	.89	.85


Figure 6


Figure 7


Figure 8


Figure 9

* **P/N 106112:** Contact rating: 3A @ 110VAC, solder lugs

† **P/N 196921:** click type

Pushbutton Switches

IP Series Pushbutton Switches

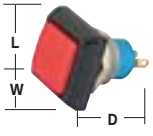
APEM

- Panel mount
- Insulation resistance: 1GΩ min. @ 500VDC
- Dielectric strength: 1500Vrms min.
- Initial contact resistance: 50mΩ max.
- Mounting hole: 1/2"Dia.
- Mechanical life: 1,000,000 cycles min.

171758



171766



Part No.	Product No.	Pins	Type ( ) Momentary	Dimensions L	W	D	Lead Spacing	Contact Rating	Terminal Type	Pricing 1	10	100	250
171758	IPR3SAD2	2	SPST off-(on)	0.82"	—	0.46"	0.19"	0.2A @ 250VAC	Solder	$8.95	$7.95	$6.95	$5.95
171766	IPC3SAD6	2	SPST off-(on)	0.82"	0.69"	0.46"	0.19"	0.2A @ 250VAC	Solder	8.99	7.99	7.29	6.59

AV Series Pushbutton Switches

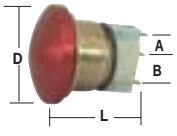
APEM

- Panel mount
- Mounting hole: 3/4"Dia. for P/N 171774; 0.85"Dia. for P/N 191062
- Insulation resistance: 1000MΩ min
- **171774:** Initial contact resistance: 10mΩ max.
- Dielectric strength: 1000Vrms min.
- **191062:** w/ mushroom head actuator
- Initial contact resistance: 100mΩ max.
- Dielectric strength: 2000Vrms min.

171774



191062



Part No.	Product No.	Pins	Type ( ) Momentary	Dimensions L	D	Lead Spacing A	B	Contact Rating	Terminal Type	Pricing 1	10	100	250
171774	AV191003C900	2	SPST off-(on)	1.20"	0.87"	0.37"	—	2A @ 48VDC	Screw	$10.95	$9.85	$8.86	$7.98
191062	AV22PNA62	3	SPDT off-(on)	1.41"	1.18"	0.24"	0.35"	5A @ 250VAC	Solder	29.95	26.95	24.25	21.83

Pushbutton Switches

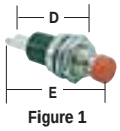


Figure 1

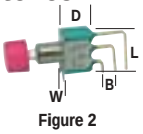


Figure 2

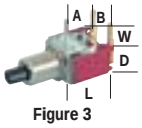


Figure 3

NEW


Figure 4



Figure 5

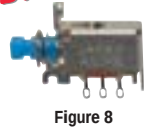


Figure 6



Figure 7

NEW

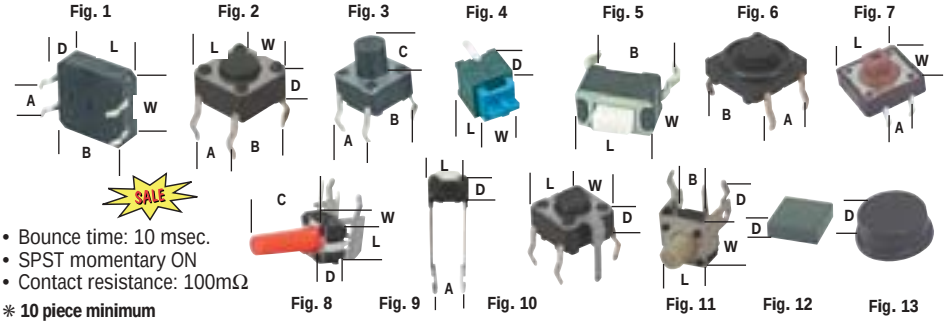

Figure 8

Part Number	Mfr. Cross Ref. No.	Fig.	Pins	Mounting Hole Dia.	Type ( ) Momentary	Dimensions (L" x W" x D")	Lead Spacing A"	B"	Contact Rating	Terminal Type	Button Color	Pricing 1	10	100	250	OEM 1000
26622	MS102	1	2	1/4"	SPST off-(on)	.65 (D) x 1.10 (E)	—	.14	3A @ 125VAC	Solder lugs	Red	$.49	$.43	$.37	$.30	$.25
26649	MS103	1	2	1/4"	SPST on-(off)	.65 (D) x 1.10 (E)	—	.17	3A @ 125VAC	Solder lugs	Black	.49	.43	.37	.30	.25
154878	PS11-123	2	3	1/4"	SPDT on-(on)	.50 x .27 x .37	—	.14	5A @ 125VAC	Solder, right angle	Red	.79	.71	.59	.47	.35
71642	SWB210	3	2	7/32"	SPST off-(on)	.33 x .36 x .20	.20	.20	1A @ 120VAC	PC right angle	Black	1.69	1.49	1.29	1.09	.94
200774	TPI2SH8AQE	3	3	7/32"	SPDT off-(on)	.33 x .32 x.20	.20	.10	1A @ 120VAC	PC right angle	Black	4.19	3.35	2.51	1.76	1.95
202999	BB16	4	3	1/4"	SPDT on-on	.39 x .35 x .35	.18	.10	0.1A @ 28VAC	Solder, right angle	White	1.39	1.25	1.12	.99	.99
121304	CK8121	5	3	1/4"	SPDT on-(on)	.52 x .27 x .38	—	.185	5A @ 125VAC	Solder lugs	White	3.49	2.95	2.49	2.25	1.95
28062	PB126	5	3	1/4"	SPDT on-(on)	.52 x .28 x .38	—	.185	5A @ 120VAC	Solder lugs	Red	3.49	2.95	2.49	2.25	1.95
22200	J1881	6	2*	3/8"	SPST on-off, Alt†	.65 x .52 x .40	.25	—	2A @ 14VDC	5" Pigtail	White	1.09	.95	.80	.65	.59
22218	J1882	6	2*	3/8"	SPST off-(on)	.65 x .52 x .40	.25	—	2A @ 14VDC	5" Pigtail	Red	1.09	.95	.80	.65	.59
174414	R13-510A	7	2	1/2"	SPST off-(on)	.67 (L) x .31 (D)	—	.167	3A @ 125VAC	Solder lugs	Red	.89	.80	.72	.65	.58
206324	SPPJ31319A	8	3	1/4"	SPDT on-off	.58 x .21 x .33	.18	.11	2A @ 30VDC	Solder lugs	Blue	.49	.39	.32	.25	.25

† Alt = alternate action

* Lead wires

Tactile Switches



- Bounce time: 10 msec.
- SPST momentary ON
- Contact resistance: 100mΩ

✳ **10 piece minimum**

Part Number	Mfr. Cross Ref. No.*	Fig.	Pins	Dimensions (in.) L	W	D	C	Lead Spacing A"	B"	Contact Rating	Lead Type	Button Color	Pricing 1	10	100	250
122972	DTS1212	1	4	.47	.47	.18	—	.20	.50	20mA @ 15VDC	PC	Black	$.29	$.25	$.22	$.18
119010	KTIIBICM	2	8	.24	.24	.15	0.3	.17	.25	20mA @ 15VDC	PC	Black	.29	.23	.17	.12
149948	KT11P4CM	3	4	.24	.24	.15	1.7	.17	.25	20mA @ 15VDC	PC	Black	✳	.19	.17	.14
115086	KIE22	4	2	.24	.24	.22	—	—	.25	20mA @ 15VDC	PC	Blue	✳	.19	.12	.10
175652	PBS35	6	4	.31	.31	.10	—	.20	.35	20mA @ 15VDC	PC	Black	✳	.19	.15	.11
199726	EVQ11A04M	9	2	.24	.24	.14	0.3	.20	—	20mA @ 15VDC	PC	White	✳	.19	.17	.13
200361	EVQPB04K†	10	5	.24	.24	.14	0.3	.17	.26	20mA @ 15VDC	PC	Black	✳	.19	.17	.13
137189	PBS103	1	4	.47	.47	.17	—	.20	.50	50mA @ 12VDC	PC	Black	.39	.35	.32	.19
153251	SDT620K	2	4	.24	.24	.15	0.6	.17	.25	50mA @ 12VDC	PC	Black	.29	.25	.15	.135
155248	KRS-3550-BK	5	2	.24	.14	.15	—	—	.27	50mA @ 12VDC	PC	Black	.29	.25	.22	.18
155256	KRS-3550-WH	5	2	.24	.14	.15	—	—	.27	50mA @ 12VDC	PC	White	.39	.29	.23	.17
206341	KPT1107A	5	2	.24	.14	.15	—	—	.25	50mA @ 12VDC	PC	White	.39	.29	.23	.17
155379	KRS-1273B	7	4	.47	.47	.14	.14	.17	.53	50mA @ 12VDC	PC	Brown	.39	.35	.31	.26
206332	MJTP1236E	11	2	.27	.27	.28	—	—	.18	50mA @ 12VDC	PC	White	.39	.29	.23	.17
202956	KSM06330	8	2	.24	.24	.15	.38	.11	.18	50mA @ 24VDC	PC	Red	.29	.22	.15	.15

Tactile Switch Caps

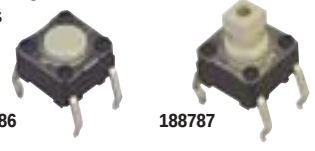
Part No.	Mfr. Cross Ref. No.*	Fig.	Description	Size (inches)	Material	For Use With	Color	Pricing 1	10	100	250
155389	KRS-CAP-A	12	Square switch cap	.47"L x .47"W x .16"H	Plastic	P/N 155379	Black	✳	$.19	$.17	$.15
155408	KRS-CAP-B	13	Round switch cap	.5"Dia. x .25"H	Plastic	P/N 155379	Black	✳	.15	.13	.11

* Mfr. Cross Ref. number and manufacturer may vary † **200361:** with ground pin

B3F Series Miniature Tactile Key Switches

Miniature, low profile and easy mounting. Ideal for applications such as audio, office and communications equipment, measuring instruments, TVs, VCRs, etc.

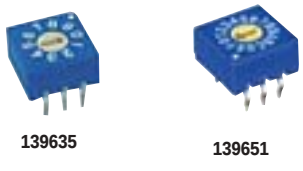
- Etended mechanical/electrical service life
- Flux-tight base structure allow automatic soldering of the key switches onto a PC board



Part No.	Type	Operating Force	Dimensions (H x Pitch)	1	25	50	100
162886	B3F-1000	General purpose 100g	4.3 mm x 6.5 mm	$.39	$.31	$.28	$.25
188787	B3F-1050	High-force 260g	7.3 mm x 6.5 mm	.39	.31	.28	.25

Excell Rotary DIP Switches

- Gold plated contacts to ensure reliable, low resistance connection
- Fully sealed construction
- Terminals: PC pin leads
- Life: 10,000 cycles min.
- Material: 94V-0 grade, UL approved fire retardant plastic
- Ma. switching load rating: 25mA @ 24VDC
- Op force: 500g-cm ma.

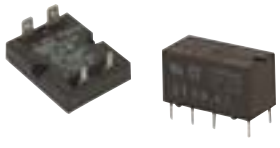


Part No.	Product No.	Position	Adjust	Code Type	W" x D" x H"	1	10	50	100
139635	ERD110RS(DRD10)	10	top	BCD	0.39 x 0.39 x 0.20	$2.95	$2.49	$2.25	$1.95
139651	ERD116RS	16	top	Hex	0.39 x 0.20 x 0.39	2.95	2.49	2.25	1.95

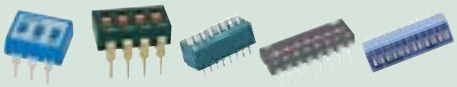


For Omron Relays see pages 76 - 77

OMRON



DIP Switches



- Switch contacts: SPST • Switches are numbered
- 50VDC @ 100mA • Molded construction
- Standard switches have raised lever
- LP switches are flush to casing • Pre-tinned leads

Compatible Socket Chart, see page 83 for Sockets

Switch	Socket	Switch	Socket	Switch	Socket
109057	112192	38826	37161	101856	38113
206359	51570	38834	37161	38797	38607
38818	51570	38842	37372	38800	39378
139002	51570	139011	37372	202921	37372

Part No.	Mfr. Cross Ref. No.*	Pos.	Pricing 1	10	100	1000
109057	206-2	2	$.69	$.60	$.55	$.45
206359	206-3	3	.79	.65	.55	.45
38818	206-4	4	.79	.65	.55	.45
139002	206-4LP	4	.79	.70	.63	.55
38826	206-6	6	.89	.79	.69	.59
38834	206-7	7	.79	.65	.55	.45
38842	206-8	8	.89	.80	.72	.64
139011	206-8LP	8	.79	.65	.55	.45
202921	DIPSWRA8	8	.89	.79	.69	.62
101856	206-9	9	.79	.65	.55	.39
38797	206-10	10	.99	.79	.59	.42
38800	206-12	12	1.09	.99	.89	.79

* Mfr. Cross Ref. number and manufacturer may vary

Tri-State DIP Switch

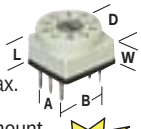


- Switch contacts: bussed, tri-state
- Labeled tri-state positions (+, 0, -)
- Contact rating: 24VDC @ 25mA
- Two isolated busses • Pre-tinned leads
- Compatible socket, use P/N 37372, pg 83

Part No.	Mfr. Cross Ref. No.	Pos.	Pricing 1	10	50	100
138991	ETA108E	8	$1.95	$1.75	$1.55	$1.35

Rotary DIP Switches

PT Series Top Adjustment



- Insulation resistance: >100MΩ min.
- Contact rating: 0.4A @ 24VDC
- Initial contact resistance: >80mΩ max.
- Lead spacing: 0.3" (A); 0.1" (B)
- Lead type: solder • 6-pins • PCB mount
- Dimensions: 0.39"L x 0.39"W x 0.26"D

SALE

Part No.	Prod. No.	Type	Pos.	1	10
191134	PT65103	Hex	16	$2.39	$2.19

Rotary Switches



101573

- Panel mount • Make before break
- Solder lugs • Layers: 1
- Contact rating: 30VDC @ 0.3A
- Insulation resistance: 10MΩ min.
- Contact resistance: 30mΩ
- Material: solid brass bushings, slotted aluminum shafts, plated frame, phenolic contact wafer (except for P/N 101565 – plastic casing)
- Mounting hole diameter: 3/8" • Lug size: 0.07"
- Compatible with Jameco rotary knobs P/N 102787 and 104176, pg 97

Includes: Washer and nut

Part No.	Mfr. Cross Ref. No.*	Poles	Pos.	Shaft Size (L" x Dia.")	Pricing 1	10	100
101531	RS0261	1	12	0.46 x 0.25	$1.39	$1.25	$1.12
101573	RS022	2	6	0.46 x 0.25	1.35	1.15	.90
101565	RS023	3	4	1.16 x 0.25	1.45	1.15	.90
101557	RS024	4	3	0.46 x 0.25	1.09	.81	.57

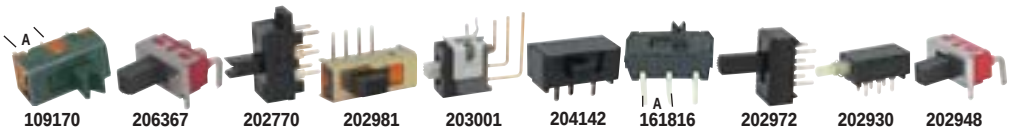
* Mfr. Cross Ref. number and manufacturer may vary

Part Number Color Code
New Sale Refurbished Closeout

Slide Switches

NEW

- Two mounting flanges
- UL approved
- Phenolic insulated
- **204142:** Side actuated
- Top actuation
- Black nylon actuator
- Metal housing
- † Plastic housing – flanges



109170 206367 202770 202981 203001 204142 161816 202972 202930 202948

Part No.	Pins	Type	Description	Dimensions L"	W"	D"	Lead Spacing (A")	Contact Rating	Lead Type	Length of Leads	Actuator Height	Pricing 1	10	100	250
109170	3	SPDT on-on	PC mount	.22	.45	.23	.12	0.5A @ 50VDC	Solder pins	.17"	.15"	$.35	$.29	$.22	$.17
206367	3	SPDT on-off	PC mount right angle	.26	.52	.27	.20	0.5A @ 125VAC	Solder pins	.27"	.31"	.55	.49	.45	.39
202770	6	SPDT on-on	PC mount	.71	.36	.38	.20	0.1A @ 30VDC	Solder pins	.17"	.32"	.39	.31	.23	.17
202981	4	SP3T on-on-on	PC mount right angle	.61	.24	.18	.10	0.3A @ 125VAC	Solder pins	.26"	.15"	.55	.49	.44	.39
203001	3	SPDT on-off-on	PC mount right angle	.36	.20	.39	.11	0.1A @ 28VDC	Solder pins	.18"	.10"	.55	.49	.44	.39
204142	3	SPDT on-on	PC mount	.77	.40	.37	.19	2.0A @ 28VDC	Solder pins	.19"	.17"	.35	.29	.22	.15
161816	6†	DPDT on-on	PC mount	.38	.14	.13	.11	0.1A @ 20VDC	Solder pins	.11"	.08"	.49	.45	.34	.24
202972	6	DPDT on-on	PC mount	.77	.43	.29	.18	1.0A @ 24VDC	Solder pins	.21"	.51"	.55	.49	.44	.39
202930	6	DPDT on-on	PC mount	.76	.44	.29	.18	4A @ 28VDC	Solder pins	.23"	.40"	.59	.53	.48	.43
202948	3	SPDT on-on	PC mount right angle	.50	.27	.26	.19	6A @ 28VDC	Solder pins	.13"	.19"	.55	.49	.44	.39

Module Optical Switch

- Type N package
- Input diode: forward voltage (V_F) – 1.60V max. (I_F=20mA); reverse current (I_R) – 10µA (V_R = 5V)
- Collector dark current (I_{CEO}) – 100nA (V_{CE} = 10V)
- C-E saturation voltage (V_{CE}) (sat): 0.4V max. (Ic = 0.5mA; I_F=20mA)



Part No.	Mfr. Cross Ref. No.	1	10	50
196058	ITR-8105	$1.95	$1.75	$1.59

Slotted Optical Switch

- Type N package
- Input diode: forward voltage (V_F) – 1.60V (I_F=10mA); reverse current (I_R) – 100µA (V_R = 3.0V)
- Output phototransistor: breakdown voltage ($V_{BR\ CEO}$) = 30V min.; collector-emitter dark current (I_{CEO}) – 100nA (V_{CE} = 5V)
- Coupled: saturation voltage (V_{SAT}) – 0.40V (I_F = 10mA; Ic=100µA) gap unblocked



Part No.	Product No.	1	10	50
189481	OPB660N	$2.95	$2.65	$2.39

16-Button Indoor/Outdoor Keypads

- 9-pin 0.100" headers
- Fully sealed snap-dome contact
- For indoor or outdoor use
- Contact rating: 24VDC @ 10mA resistive
- Life test: 3,000,000 cycles per key
- Compatible with MOS, TTL and DTL (10Ω max.)
- Recommended connector: P/N 103190 header and 100765 pin
- Size (housing): 4.7"W x 1.7"H x 0.4"T



196171



152063

✳ **Prepackaged: please order in increments of 10 or 100**

Part No.	Description	1	10	100
196171	2x8 matrix keypad	$14.95	$13.45	$12.10
152063	4x4 matrix keypad	14.95	13.49	11.95
103190	Header housing (10-pin)	.42	.39	.36
100765	Header pin (10 per pack) ✳		.11	.09

SPST Round Keylock Switches

- Used in computer & other security systems
- Key removable from 2 positions • Two keys
- Mounting hole = 0.75" except P/N 106649 = 0.5"

196648: all keys are alike

Includes: Mounting nut



106649



105831/196648

Part Number	Mfr. Cross Ref. No.	No. Flat, Dia.	Length	Style	Terminal	Voltage/Current	1	10	50	100
106649	KS4B	2, .21"	.55"	SPST	Barrel	125VAC/3A	$2.99	$2.69	$2.39	$1.99
105831	KS3B	2, .66"	1.48"	SPST	.25" quick connect	125VAC/6A	3.99	3.59	3.29	2.99
196648	3313E-M	2, .66"	1.48"	SPST	.25" quick connect	125VAC/6A	3.99	3.59	3.29	2.99

Magnetic Reed Switches



164081

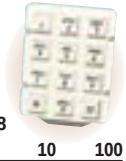
- NO (normally open)
- Contact form: SPST

171871: • Rating: 500mA @ 100VDC **164081:** • Rating: 1A @ 250VAC; 1A @ 50VDC

Part No.	Product No.	Size (length includes leads)	1	10	100	1000
171871	MKA141011015	1.73"L x 0.1"Dia.	$.99	$.89	$.80	$.73
164081	MRS1	2.35"L x 0.2"Dia.	.99	.85	.65	.49

12-Button Telephone Keypads

- White plastic • 8-pin .100" header
- Tactile type keypad
- Contact rating: 12VDC @ 20mA
- Contact resistance: 200Ω max.
- Life test: 1,000,000 cycles per key
- Size: 2.8"L x 2.2"W x 0.6"H



153488

Part No.	Description	1	10	100
190561	Numeric keypad	$7.95	$5.96	$4.17
153488	Alpha numeric keypad	8.45	7.59	6.85

16-Button Numeric Keypad

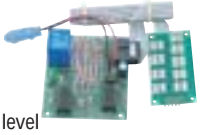
- 4 x 4 matrix keypad
- 8-position solder pad
- Contact rating: 24VDC @ 20mA
- Contact resistance: 200Ω max.
- Life test: 1,000,000 life cycles per key
- Size: 3.0"L x 2.8"W x 0.6"H



Part No.	Description	1	10	100
169244	Numeric keypad	$7.95	$6.95	$6.25

Electronic Combination Lock

- Programmable 4-digit combination lock with separate 9 touch-pad board
- Output: 240VAC 12A relay controls external loads
- 19 piece kit • Intermediate level
- Size: 3.0"L x 2.5"W x 1.0"H



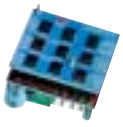
Requires: 9V battery (P/N 151095, pg 168)

Part No.	Description	1	10
125129	Lock kit	$12.29	$10.99

velleman

Code Lock Kit





- Switch an alarm on and off or open door locks
- 3000+ codes possible
- Pulse or switch outputs
- LED indicates state
- Relay contact rating: 5A/220V
- 67 piece kit • Intermediate level
- Size: 1.7"L x 1.8"W • Weight: 0.5 lbs.

Requires: 9-15VDC (P/N 163491, pg 61) or 8-12VAC (P/N 100061, pg 60) power supply

Part No.	Product No.	1	10
127554	K6400	$25.95	$23.95

Keypad Encoder

Designed to interface a matrix 4 row by 4 column keypad (16 key or less) to a microcontroller or other host processor.

e-lab

See This and Other Digital Interface ICs Page 10

SS Subminiature Basic Switches

OMRON

- Economical, subminiature basic switch offers long service life (30 million operations min.)
- Free from overtravel restrictions, permit easy setting
- Contact form: SPDT
- Dimensions: 0.78"L x 0.25"W x 0.40"H

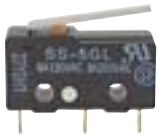

Fig. 1


Fig. 2


Fig. 3

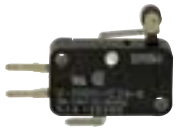
Part No.	Product No.	Actuator Type	Contact Force	Terminal Type	Contact Rating	Fig.	1	25	50
187709	SS-5GL	Hinge lever	50g	Solder terminal	3A @ 250VAC	1	$1.59	$1.45	$1.29
187717	SS-5GL13	Simulated roller hinge	50g	Solder terminal	3A @ 250VAC	2	1.69	1.49	1.35
187733	SS-5GL2	Hinged roller	50g	Solder terminal	3A @ 250VAC	3	1.95	1.75	1.59

Basic Switches

OMRON


Fig. 1


Fig. 2


Fig. 3

- Terminal type: bottom
- Contact form: SPDT
- Dimensions: 1.49"L x 0.41"W x 0.63"H
- Service life: 50 million cycles mechanical; 300,000 cycles electrical

Part No.	Product No.	Actuator Type	Contact Rating	Fig.	1	25	50
187792	V-10G2-1C24-K	Hinge lever	10A @ 250VAC	1	$2.59	$2.35	$2.19
187805	V-10G3-1C24-K	Long hinge	10A @ 250VAC	2	2.75	2.49	2.29
187936	V-15G5-1C26-K	Short hinge roller	15A @ 250VAC	3	2.15	1.95	1.75

Honeywell Snap Action Switch

- Contact Form: SPDT
- Contact rating:10A @ 250VAC
- Mechanical life: 10,000,000 cycles
- Electrical life @ full rated load: 1,000,000 cycles
- Actuator type: pin plunger
- 0.220" solder terminal
- Size: 1.1"L x .38"W x .63"H



SALE

Part No.	Product No.	1	10	100
191388	V3-715	$1.95	$1.29	$.79

Honeywell Basic Lever Type Switch

- Contact Form: SPDT (NC)
- Contact rating: 0.5A @ 125VDC
- Actuator type hinge lever
- Contact force: 30 grams maximim
- Terminal type: 0.185" quick disconect
- Size: 1.13" X 0.40" W x 0.62"H



NEW

Part No.	Product No.	1	10	50
203545	V7-3E11D8-022	$2.45	$2.25	$1.99

PCB Plunger Switch

Use in Place of Shorting Block

SALE



- SPST (on/off)
- Contact rating: 50mA @ 24VDC
- Non-removable plunger
- Size: 0.2"W x 0.1"D x 0.38"H
- Lead length: 0.1"L

✳ 10 piece minimum

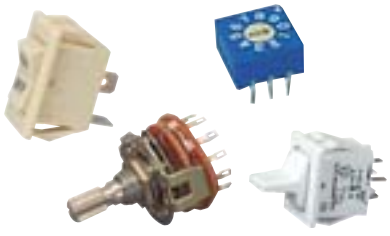
Part No.	Description	1	10	100	1000
172700	Plunger switch ..... ✳	$.19	$.14	$.10	

Grayhill SP5T Rotary Switch



- Panel mount
- Fixed stop
- 1/8" screwdriver slotted shaft
- 36˚ angle of throw
- Single pole, 5-positions
- Contact resistance: 20mΩ max.
- Insulation resistance: 1,000MΩ minimum between mutually insulated parts
- 0.06" solder terminals
- Material: stainless steel shaft and detent contact springs; brass terminals (gold plated over nickel plate); zinc, cadmium plated bushing

Part No.	Product No.	1	10	100
184727	50AB36-01-1-5-F ...	$4.79	$4.35	$3.89



For additional Lever and Rotary Switches see pages 68 & 71.

Click Action Basic Precision Switches

HIGHLY

- 3 terminals: common; normal closed; normal open
- Dielectric strength: 1000VAC 50-60Hz for 1 min.
- Insulation resistance: 100MΩ min. (@ 500VDC)
- Type: NO-NC-common


159599


159572


159581

Part Number	Product Number	Description	Rating	Contact Resistance (initial)	Service Life Mechanically	Service Life Electrically	Terminals Type	Agency Approval	Pricing 1	Pricing 10	Pricing 100
159599	SS0505A	Subminiature	5A @ 125VAC	30milliΩ max.	10 million	200,000	.127" quick discon.	UL	$2.85	$2.54	$2.28
159572	VS10N051C	Micro (T90S1D12-12)	10A @ 250VAC	15milliΩ max.	10 million	100,000	.183" quick discon.	UL/CSA	2.89	2.54	2.28
159581	VS10N021C2	Micro	10A @ 250VAC	15milliΩ max.	10 million	100,000	.183" quick discon.	UL/CSA	2.45	2.25	1.99

OMRON D2F Series Subminiature Snap-Action Switches

Super compact, for PCB mounting. Ideal for a wide variety of applications from household appliances and office equipment to audio and communications equipment.

- Long life span assured by high-precision dual spring reverse-action mechanism
- Flux penetration prevented by using an insert terminal and allowing a height difference at the case bottom
- Dimensions: 0.50"L x 0.23"W x 0.26"H
- Contact form: SPST


188824 (Fig. 1)


188859 (Fig. 2)

SALE

Part No.	Product No.	Actuator Type	Contact Type	Contact Force	Contact Rating (125VAC/30VDC)	Fig.	1	25	50
188824	D2F-01	Pin plunger	Microvoltage/current	Standard (150g)	0.1A/0.1A	1	$.87	$.78	$.70
188859	D2F-FL	Hinge lever	General purpose	Low force (25g)	3A/2A	2	.98	.88	.79
188867	D2F-L	Hinge lever	General purpose	Standard (80g)	3A/2A	2	1.05	.95	.85

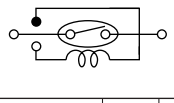
Part Number Color Code
New Sale Refurbished Closeout

Reed Type Relays

- Dielectric strength: 500VDC (between contact and coil)
- Operating temperature: -35°C to +85°C
- Normally open (NO), normally closed (NC)

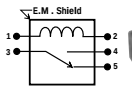
SALE

111448





168356





Part Number	Mfr. Cross Ref. No	Manufacturer	Coil Voltage	Coil (Ohms)	Contact Form	Contact Voltage	Contact Current	Pins	Terminal Type	L x W x H (in.)	Pricing 1	10	50	100
111448	RC108T	Han Kuk	12VDC	550	SPST	250VAC/150VDC	0.1A	4	PCB solder	1.0 x .37 x .38	$.85	$.75	$.65	$.55
168356	R8864-2	ELEC-TROL	12VDC	1080	SPDT	28VDC (max.)	0.25A	5	PCB solder	1.1 x .35 x .32	.65	.55	.50	.45

Small High-Current PC Mount Relays

SALE

An inexpensive means of switching loads up to 30 amps. While these small, low-cost relays are designed primarily for the appliance industry and the heating, air conditioning and ventilation markets, they are also well suited for automotive load management and other applications.


A


B


C



D


E


F


G

- Meets UL class F insulation standard
- Mechanical life expectancy is 10 million operations
- Electrical life expectancy is 100,000 operations at rated loads
- Dielectric strength: 1,500Vrms (between contact and coil)

Fig. 1

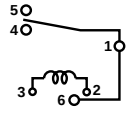


Fig. 2

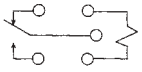


Fig. 4

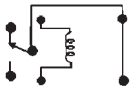


Fig. 6

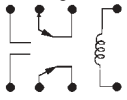


Fig. 8

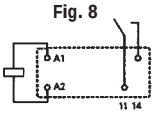


Fig. 3

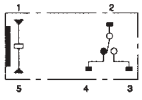


Fig. 5

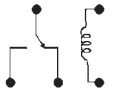


Fig. 7

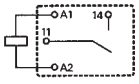
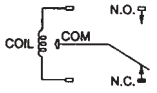


Fig. 9



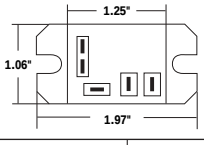
***104926:** Open frame relay
****129349:** Immersion cleanable, plastic sealed case
†**144186**: For use with universal relay card (P/N 128910, pg 173)
††**195856**: High dielectric strength of 4kV with 8mm clearance/creepage
1 Manufacturer and product number may vary

Part Number	Mfr. Cross Ref. No.	Potter & Brumfield Cross Reference	Fig.	Contact Form	Coil Voltage	Coil (Ohms)	Contact Voltage	Contact Current	Pins	L x W x H (in.)	Pricing 1	10	50	100
145752	T90S1D12-12 [1]	T90S1D12-12	1A	SPST	12VDC	155	240VAC	30A	5	1.2 x 1.0 x .77	$2.99	$2.69	$2.39	$2.15
195864	RP838012	—	8F	SPST	12VDC	270	250VAC	12A	4	1.1 x .48 x 1.0	1.65	1.45	1.29	1.19
192778	TN423024	T7NS1D1-24	7E	SPST	24VDC	1600	250VAC/30VDC	7A	4	.82 x .62 x .63	1.95	1.75	1.49	1.25
134949	FKD130PSDC5V	T90S5D12-5	1A	SPDT	5VDC	27	240VAC/28VDC	30A	6	1.3 x 1.1 x .80	2.25	1.95	1.75	1.49
174449	LU-5	T81H5D215	4C	SPDT	5VDC	125	120VAC/24VDC	1A/2A	6	.60 x .40 x .45	1.95	1.79	1.59	1.39
104926	733SPDT12VDC*[1]	T90N5D12-12	1E	SPDT	12VDC	155	240VAC/28VDC	20A/10A	6	1.2 x .90 x .63	2.49	2.24	2.01	1.81
129349	832-IC-S**	T90S5D12-12	1A	SPDT	12VDC	155	277VAC/28VDC	20A/10A	6	1.2 x 1.0 x .75	3.25	2.93	2.63	2.25
174393	LM1-12D	RKA5DG12	5D	SPDT	12VDC	270	250VAC/30VDC	10A	5	1.2 x .48 x 1.0	1.85	1.67	1.49	1.25
172937	JS1-12V	T72M5D121-12	9G	SPDT	12VDC	400	125VAC/24VDC	10A/5A	5	.85 x .62 x .63	1.15	1.09	.95	.79
144186	JZC-22F†	VR15M121C	2C	SPDT	12VDC	337	120VAC/28VDC	15A	5	.80 x .64 x .80	3.25	2.92	2.63	2.36
174431	LEG12F	T7CS5D12	2C	SPDT	12VDC	400	120VAC/24VDC	15A	5	.76 x .62 x .60	1.49	1.29	1.19	1.09
195856	G6R-1-DC12††	—	3B	SPDT	12VDC	650	250VAC	8A	5	1.2 x .39 x .57	3.95	3.55	3.17	2.15
174457	LU-12	T81H5D2112	4C	SPDT	12VDC	720	120VAC/24VDC	1A/2A	6	.60 x .40 x .45	1.35	1.19	1.05	.95
173569	L90-24W	T90S5D12-24	1A	SPDT	24VDC	660	277VAC/30VDC	20A	6	1.2 x 1.1 x .77	1.45	1.29	1.15	1.05
174377	LM2-12D	RKA5DZ12	6D	DPDT	12VDC	270	250VAC/30VDC	5A	8	1.2 x .48 x 1.0	2.49	2.25	1.95	1.75

T9A Series Relay

Low Cost PC Board or Panel Mount Only

- Mechanical life expectancy is 10 million operations
- Operating temp.: -55˚C to +85˚C
- Dielectric strength: 1500VAC (between open contacts)





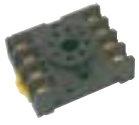
Part Number	Product Number	Potter & Brumfield Cross Reference	Contact Form	Coil Voltage	Coil (Ohms)	Contact Voltage	Contact Current	Pins	Terminal Type	L x W x H (in.)	Pricing 1	10	50	100
137357	953-IC-12DM	T9AS5D52-12	SPDT	12VDC	155	240VAC/28VDC	20A/10A	5	.1" disconnect (2) .25" disconnect (3)	2.0 x 1.6 x 1.8	$3.49	$3.14	$2.82	$2.54











See page 75 for our selection of Sockets

Opening an account is easy!!

Corporate Customers

Call 1-800-831-4242 for details today



Call for OEM pricing – we carry major manufacturers.

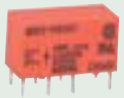
DIP Relays

- Logic control levels
- Moisture resistant
- Compatible with IC sockets
- Long life with reliable operation
- Compact design/ construction
- Excellent for PCB applications

Aromat

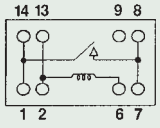
FUJITSU


106462

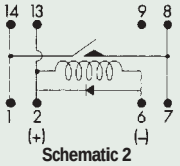

129875


99901

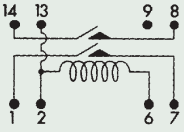

136549



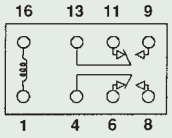
Schematic 1



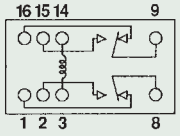
Schematic 2



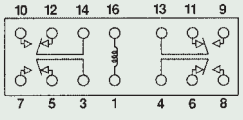
Schematic 3



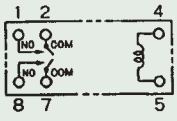
Schematic 4



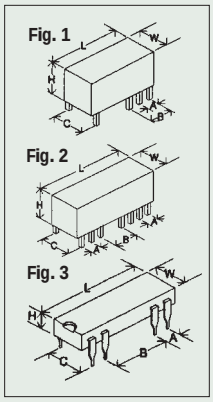
Schematic 5



Schematic 6



Schematic 7



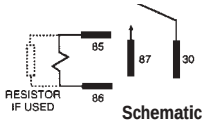
Part Number	Mfr. Cross Ref. No.	Manufacturer	Contact Schem.	Contact Form	Coil Voltage	Coil Ohms	Contact Voltage	Contact Current	Pins	Jameco Socket	Fig.	Size L x W x H (in.)	Leads A x B x C (in.)	Pricing 1	10	50	100
106462	201A05	Excel Cell Elect.	1	SPST-NO	5VDC	500	100VDC	0.5A	8	37161	3	.78 x .25 x .20	.10 x .40 x .30	$2.29	$1.95	$1.69	$1.39
138430	2D1A05	Excel Cell Elect.	2	SPST-NO	5VDC	500	100VDC	0.5A	8	37161	3	.77 x .30 x .22	.10 x .40 x .30	2.29	1.95	1.65	1.34
106471	201A12	Excel Cell Elect.	1	SPST-NO	12VDC	1000	100VDC	0.5A	8	37161	3	.78 x .25 x .20	.10 x .40 x .30	2.59	2.39	2.09	1.89
138448	2D1A1200	Excel Cell Elect.	2	SPST-NO	12VDC	1000	100VDC	0.5A	8	37161	3	.77 x .30 x .22	.10 x .40 x .30	2.25	1.95	1.75	1.49
192760	5MBU-5	Fujitsu	7	DPST-NO	5VDC	35	240VAC/24VDC	5A	8	—	1	1.13 x .50 x .98	.17 x .76 x .28	1.95	1.55	1.19	.83
138456	202A05	Excel Cell Elect.	3	DPST-NO	5VDC	140	100VDC	0.5A	8	37161	3	.77 x .30 x .28	.10 x .40 x .30	3.49	3.15	2.69	2.19
129875	DS2EMDC5V*	NEC (MR62-5)	4	DPDT	5VDC	62.5	125VAC/30VDC	.6A/1A	8	37372	1	.79 x .40 x .39	.20 x .40 x .30	3.95	3.49	2.95	2.25
173913	AZ831-2C-5DSE	American Zettler	4	DPDT	5VDC	125	125VAC/100VDC	.5A/1.25A	8	37401	1	.79 x .38 x .44	.18 x .28 x .29	1.95	1.55	1.19	.82
139977	RSB5S	Shin Mei	4	DPDT	5VDC	125	120VAC/30VDC	1A/2A	8	37372	1	.79 x .39 x .37	.20 x .40 x .30	2.49	2.25	1.95	1.75
99338	LM12C00	Clare	4	DPDT	6VDC	71	125VAC/100VDC	2A	8	37372	1	.79 x .40 x .43	.20 x .40 x .30	2.49	2.25	1.95	1.75
18577	HB212	Aromat	5	DPDT	12VDC	250	125VAC/30VDC	1A/2A	8	37372	1	.79 x .44 x .60	.10 x .20 x .30	4.95	4.49	3.95	3.49
99311	DS2Y-S-DC12V*	Aromat (NAIS)	4	DPDT	12VDC	720	110VAC/30VDC	.3A/1A	8	37372	1	.79 x .40 x .43	.20 x .40 x .30	4.95	4.49	3.95	3.49
99901	LX200D00	Clare	4	DPDT	12VDC	720	125VAC/100VDC	2A	8	37372	1	.79 x .40 x .30	.20 x .40 x .30	6.95	6.25	5.63	4.49
99320	LM12E00*	NEC	4	DPDT	24VDC	1110	125VAC/100VDC	2A	8	37372	1	.79 x .40 x .43	.20 x .40 x .30	2.75	2.48	2.23	1.79
136549	DS4E-M-DC5V*	Aromat	6	4PDT	5VDC	62.5	125VAC/30VDC	.6A/2A	14	112299	2	1.40 x .40 x .36	.20 x .30 x .30	5.49	4.94	4.45	3.75
176313	DS4E-M-DC12V	Aromat	6	4PDT	12VDC	360	125VAC/30VDC	.6A/2A	14	112299	2	1.40 x .40 x .36	.20 x .30 x .30	7.95	7.15	6.45	5.79

* Manufacturer and Manufacturer Cross Ref. number may vary

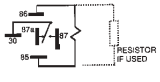
Potter & Brumfield Type Plastic Enclosed Construction Relays

- Dielectric strength: 500VDC (between contact and coil)
- Operating temperature: -35°C to +85°C
- Normally open (NO), normally closed (NC)
- Terminal type: quick connect

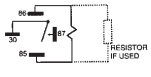
✳ **Prepackaged: please order in increments of 10, 100 or 1000**



Schematic 1



Schematic 2



Schematic 3

171467 (Fig. 1)



171432 (Fig. 2)



171441 (Fig. 3)



171459 (Fig. 4)



Part Number	Mfr. Cross Ref. No.	P&B Cross Reference	Figure	Contact Form	Coil Voltage	Coil Ohms	Contact Schematic	Contact Voltage	Contact Current	Pins	Size L x W x H (in.)	Pricing 1	10	50	100
VFM Type Relay															
171467	VFM11F11K01	VFM11F11K01	1	SPST-NO	12VDC	123	1	14VDC	20A	4	.78 x .60 x .87	✳	$.11	$.095	$.085
VF4 Type Relays															
171459	LD1A-12F	VF481F11S01	4	SPST-NO	12VDC	78	3	14VDC	40A	4	1.1 x 1.1 x 1.0	$2.49	$2.25	$1.95	$1.75
171441	961A-1A12D	VF411F11	3	SPST-NO	12VDC	90	3	14VDC	40A	4	1.1 x 1.1 x 1.0	2.49	2.25	1.99	1.65
171432	961A-1C-12DM	VF481F11	2	SPDT	12VDC	90	2	12VDC	40A	5	1.1 x 1.1 x 1.0	2.99	2.69	2.42	2.17
171521	LD5F	VF445D11	2	SPDT	5VDC	14	2	12VDC	40A	5	1.1 x 1.1 x 1.0	1.95	1.75	1.55	1.45
148582	LD12F	VF485F11	2	SPDT	12VDC	78	2	12VDC	40A	5	1.1 x 1.1 x 1.0	2.49	2.25	1.95	1.75

VF4 Type Sockets

170624: • Contact voltage/current: 12V/20A; diode coil suppression • 7.5" wire
• 12 AWG: 2 black and 1 blue wire • 18 AWG: 1 black and 1 red wire
171416:
• Accomodates 18-20 AWG wire

171416



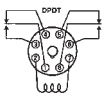
170624



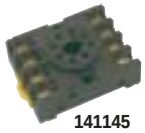
Part Number	Mfr. Cross Ref. Number	Description	Pricing 1	10	50	100
170624	RSDO3	Relay socket with coil diode (for P/N 148582; above)	$2.15	$1.95	$1.75	$1.55
171416	VCF41002	5-pin socket for VF4 relays	.45	.39	.35	.30

Part Number Color Code: New Sale Refurbished Closeout

General Purpose Relays




139740

172718

141145

155096

- DPDT • 8-pins

Pin Type Terminals – Series 78
- Contact voltage: 240VAC

Pin Type Terminals – Series 250
- Contact rating: 120/240VAC, 28VDC @ 10A
- Ambient temp. operating: -10˚C to +50˚C
- Size: 1.4"L x 1.4"W x 2.7"H

Part Number	Mfr. Cross Ref. Number	NTE Cross Reference	Coil Voltage	Pricing 1	10	50
Series 78						
172718	SCL12DPDT	K10UP21D1512	12VDC	**$4.95**	**$4.49**	**$3.95**
Series 250						
139766	BTA1-2C-12VDC	R02-11D10-12	12VDC	**$7.95**	**$7.19**	**$6.49**
139740	BTA1-2C-120VAC	R02-11A10-120	120VAC	**7.95**	**7.19**	**6.49**

Series 250 Sockets

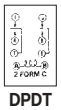
Part No.	Voltage	Current	Pins	Size (lbs.)	1	10	50
141145	250VAC	20 amps	8	2.0"L x 1.6"W x 0.8"H	**$4.19**	**$3.79**	**$3.39**
141153	250VAC	20 amps	11	2.0"L x 1.7"W x 1.2"H	**4.95**	**4.45**	**3.95**

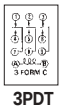
Relay Type Project Case

Part No.	Cross Ref. No.	No. of Pins	Compatible Socket	1	10	100
155096	RC8	8	141145 (pg 76)	**$1.69**	**$1.55**	**$1.39**

Quick Connect Blade Terminals – Series 388

Flat terminals (0.187" x 0.020") for standard plug-in mounting; also accept quick-connect receptacles or direct soldering.





DPDT 3PDT


- Contact rating: 120VAC/28VDC @ 13A/240VAC @ 10A; except P/N 184268 240VAC/28VDC @ 10A
- Ambient temp. operating: -30˚C to +50˚C
- Size: 1.5"L x 1.4"W x 2.2"H


141161

139862

Part Number	Mfr. Cross Ref. Number	NTE Cross Reference	Coil Voltage	Style	Pins	Pricing 1	10	50
139862	BTA1-2C-24VDC	R02-11D10-12	24VDC	DPDT	8	**$5.79**	**$5.19**	**$4.69**
139854	BTA2-3C-24VDC	R10-14D10-24	24VDC	3PDT	11	**7.95**	**6.95**	**6.25**
139838	BTA2-3C-120VAC	R10-14A10-120	120VAC	3PDT	11	**6.95**	**6.29**	**5.65**

Series 388 Socket

Part No.	Voltage	Pins	Amps	Size (lbs.)	1	10	50
141161	250VAC	11	20	3.0"L x 1.4"W x 1.0"H	**$3.95**	**$3.56**	**$3.20**

Rayex General Purpose Relays

Potter and Brumfield Type LB2 Series


175564

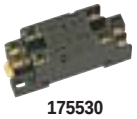
175572

- DPDT
- 8-pins
- Contact rating: 240VAC/30VDC @ 12A
- Mechanical life: 10,000,000 operations
- Electrical life: 100,000 operations min. at rated load

Part Number	Product Number	P & B Cross Reference	Coil Voltage	Pricing 1	10	50	100
172718	SCL12DPDT	K10UP21D1512	12VDC	**$4.95**	**$4.49**	**$3.95**	**$3.49**
175564	LB2-24DS	K10UP11D1524	24VDC	**4.75**	**4.25**	**3.75**	**3.25**
175572	LB2-110AS	K10UP11A15120	110VAC	**4.95**	**4.49**	**3.95**	**3.49**

Rayex LB2 Socket

- DIN rail snap socket for LB2 relays


175530

Part Number	Product Number	P & B Cross Reference	Pins	Pricing 1	10	50
175530	PTF08AA	27E895	8	**$4.45**	**$3.99**	**$3.49**

Rayex LB4H Series


175601 175610

- Mechanical life: 10,000,000 operations
- 4PDP • 14-pins
- Insulation resistance: 1,500MΩ @ 500VDC
- Electrical life: 100,000 operations min. at rated load
- Contact rating: 240VAC/24VDC @ 5A; except P/N 183011 220VAC/24VDC @ 5A

Part No.	Product No.	P&B Cross Ref.	Coil Voltage	1	10	50	100
183011	GM4PDT12DF	KHAU17D1212	12VDC	**$6.29**	**$5.49**	**$4.95**	**$4.49**
175601	LB4H-24DS	KHAU17D1224	24VDC	**4.95**	**4.45**	**3.99**	**3.59**
175610	LB4H-110AS	KHAU17A12120	110VAC	**4.25**	**3.85**	**3.45**	**3.25**

Rayex LB4H Socket

- DIN rail snap socket for LB4H relays



Part Number	Product Number	P & B Cross Reference	Pins	Pricing 1	10	50
175556	PYF14AA	PYF14AA	14VDC	**$3.95**	**$3.49**	**$2.95**

Phone 1-800-831-4242
Online www.Jameco.com

Order Anytime 24x7x365

Fax 1-800-237-6948



OMRON Relays

LY2 General Purpose Relay



- Arc barrier equipped
- DPDT
- Pins: 8
- Contact voltage: 110VAC/24VDC
- Coil voltage: 24VDC
- Contact current: 10A
- High dielectric strength (2,000 VAC)
- Long dependable service life assured by AgCdO contacts
- Dimensions: 1.10"L x 0.85"W x 1.4"H

Part No.	Product No.	1	10	50
187522	LY2AC24	**$6.49**	**$5.79**	**$5.23**

MK2 General Purpose Relay



- Contact voltage: 250VAC/28VDC
- DPDT • Pins: 8
- Contact current: 10A
- Long life (minimum 100,000 electrical operations) assured by silver contacts
- Built-in operation indicator (mechanical LED)
- Contact operation easily checked by mechanical indicator and/or push-to-test button options
- Conforms to CENELEC standards
- Dimensions: 1.36"L x 1.36"W x 2.07"H

Part No.	Product No.	Coil Volt.	1	10
187531	MK2PNSAC120	120	**$11.49**	**$10.39**

G6B Power PCB Relay



- Contact material: AgCdO
- Carry current: 5A
- Low power consumption of 200mW
- Contact rated load: 5A @ 250VAC, 5A @ 30VDC
- Resistive load (pF=1); 2A @ 250VAC, 2A @ 30VDC
- SPST-NO + SPST-NC
- Coil resistance: 480Ω
- Coil voltage: 12VDC
- Coil current: 25 mA

Part No.	Product No.	1	10	50
167281	G6B2114PUSDC12	**$2.79**	**$2.52**	**$2.26**

G2R Power PCB Relays


Fig. 1


Fig. 2


Fig. 3


Fig. 4

- Operating frequency: 18,000 operations/hour (mechanical); 1,800 operations/hour (electrical; under rated load)
- Power consumption: approx. 530mW (non-loading DC coil); approx. 0.9 mW (non-loading AC coil)
- Service life: 10,000,000 operations (min.) (AC); 20,000,000 operations (min.) (DC) • Contact voltage: 250VAC/30VDC
- Insulation resistance: 1,000MΩ (min. @ 500VDC) • Contact material: AgCdO
- Size: 1.40"L x 0.51"W x 1.00"H; *except G2R-1-T 1.77"L x 0.55"W x 1.16"H

Part Number	Product Number	Coil Volt.	Coil Res. Ω	Contact Current	Fig.	Pin	Pricing 1	25	50
				Sealed SPDT PCB Type					
186669	G2R-14 DC12	12	275	10A	1	5	**$3.21**	**$2.92**	**$2.63**
				Sealed DPDT PCB Type					
186811	G2R-24-DC12	12	275	5A	1	8	**$3.49**	**$3.14**	**$3.14**
				SPDT Plug-In Type					
186731	G2R-1-S-AC120	120	6500	10A	2	5	**$6.75**	**$6.07**	**$5.46**
				DPDT Plug-In Type					
186829	G2R-2-S-AC120	120	6500	5A	4	8	**$7.39**	**$6.65**	**$5.98**
186845	G2R-2-S-DC12	12	275	5A	4	8	**5.29**	**4.76**	**4.28**
				SPDT Quick-Connect Type					
186757	G2R-1-T-AC120*	120	260	10A	3	5	**$6.55**	**$5.90**	**$5.31**

G2RL Fully Sealed Power PCB Relay



General Purpose

- Contact voltage: 250VAC /24VDC
- Max operating frequency: 18,000 operations/hour (mechanical) 1,800 operations/hour @ rated load (electrical)
- Insulation resistance: 1,000MΩ min. @ 500VDC
- Life expectancy: 20,000,000 operations @ 18,000 operations/hour (mechanical)
- Non-latching
- Size: 1.30"L x 0.50"W x 0.61"H
- Power consumption: approx. 400mw

Part Number	Product Number	Contact Form	Coil Volt.	Coil Res. Ω	Contact Current	Pin	1	25	50
186941	G2RL-24 DC12	DPDT	12	360	8A	8	**$3.99**	**$3.59**	**$3.21**

Universal Relay Card Kit

velleman

An electronic controller that switches higher currents while providing insulation between the controller and the controlled devices.


Shown with 16 relays. Only 8 relays included

- Relay Output: 5A/220VAC maximum
- TTL or CMOS inputs
- Contact Voltage: 12VDC/250mA
- Experience level: Expert
- 64-piece kit
- Dimensions: 8.3"L x 5.9"W

Requires: 220 or 125VAC power source

Part No.	Product No.	Wt. (lbs.)	1	10
128910	K6714	1.8	**$67.95**	**$61.95**
144186	VR15M121C relay (JZC-22F)	0.03	**3.25**	**2.92**

30-Day Money-Back Guarantee

If you're not satisfied, we'll take it back!
Details on page 181.

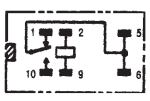
G5LE PCB Relays


187135

- Subminiature "sugar cube" relay • Contact ratings of 10A
- Contact voltage: 120VAC/30VDC • Contact current: 10A/8A
- Withstands impulses of up to 4,500V
- UL class-B insulation certified
- Size: 0.89"L x 0.75"W x 0.65"H

Part Number	Product Number	Contact Form	Coil Volt.	Coil Res. Ω	Pin	Pricing 1	25	50
		Flux Seal						
187207	G5LE-1A DC24	SPST-NO	24	1440	3	**$1.58**	**$1.43**	**$1.29**
187151	G5LE-1 DC5	SPDT	5	63	5	**1.58**	**1.43**	**1.29**
187135	G5LE-1 DC12	SPDT	12	360	5	**1.59**	**1.43**	**1.29**
		Plastic Seal						
187160	G5LE-14 DC12	SPDT	12	360	5	**$1.79**	**$1.61**	**$1.45**
187178	G5LE-14 DC24	SPDT	24	1440	5	**1.59**	**1.41**	**1.28**

G5V Low Signal Relays


G5V1


G5V1


G5V2


G5V2

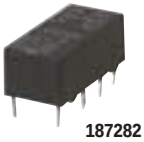
- 150 mW nominal power consumption with 96mW pickup power
- Conforms to FCC part 68 voltage surge • Fully sealed construction

G5V-1 series: • Contact rating: 125VAC @ 0.5A/24VDC @ 1A
• Size: 0.49"L x 0.30"W x 0.39"H

G5V-2 series: • Contact rating: 110VAC @ 0.3A/24VDC @ 2A; except P/N 200740 (high sensitivity) 125VAC @ 0.5/24VDC @ 1A • Size: 0.81"L x 0.45"W x 0.40"H

Part Number	Product Number	Pins	Coil Voltage	Coil Res. Ω	Contact Form	Pricing 1	25	50
			G5V-1 Low Signal Relays					
187240	G5V-1-DC5	6	5	166.7	SPDT	**$2.21**	**$1.99**	**$1.79**
184461	G5V-1-DC12	6	12	960	SPDT	**2.37**	**2.13**	**1.92**
			G5V-2 Low Signal Relays					
187258	G5V-2-DC12	8	12	288	DPDT	**$2.68**	**$2.41**	**$2.17**
184452	G5V-2-DC24	8	24	1152	DPDT	**2.49**	**1.99**	**1.49**
200740	G5V-2-HIDC24	8	24	1152	DPDT	**2.29**	**1.95**	**1.89**

G6 Low Signal Relay


187282

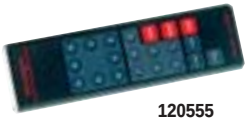
G6A low signal series:

- High sensitivity with pick-up power of approx. 200mW
- Low profile design allows use in 12.70mm PC board rack
- Surge withstand voltage meets FCC Part 68 regulation
- Can be mounted side by side due to low magnetic leakage
- Pins: 8 • Contact voltage: 125VAC/30VDC
- Contact form: DPDT • Size: 0.80"L x 0.40"W x 0.33"H

Part Number	Product Number	Coil Voltage	Coil Res. Ω	Contact Current	1	25	50
187282	G6A-234PSTUSDC5	5	125	3A	**$4.99**	**$4.45**	**$3.60**

15-Channel Infrared Transmitter & Receiver Kit

velleman

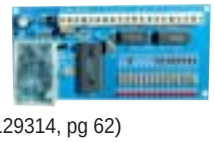

120555

- Experience level: Intermediate
- Applications: remote on-off switch, alarms, garage door opener, etc.
- 15 independent channels
- Transmitter/receiver range: ±30 meters

120555: Transmitter

Requires: 9VDC battery (recommend P/N 151095, pg 168)

120547: Receiver


120547

- Each output can be a change-over or pulse contact switch
- Output: 50VAC @ 500mA max.
- PCB dimensions: 2.8"L x 5.7"W

Requires: 8-14VDC (recommend P/N 100095, pg 61 or 129314, pg 62)

Part No.	Description	Kit Pieces	Wt. (lbs.)	1	10
120555	K6710 15-ch transmitter	37	0.8	**$64.95**	**$58.39**
120547	K6711 15-ch receiver	76	0.5	**44.95**	**39.95**

Part Number Color Code: New Sale Refurbished Closeout

DC/AC and DC/DC Solid State Relays

- Screw terminal with hardware
- Photo isolation
- Metal mounting base


176698 (Fig. 1)


153058 (Fig. 2)


192815 (Fig. 3)


162341 (Fig. 4)


176735 (Fig.5)


173518 (Fig.6)

Part Number	Mfr. Cross Ref. Number	Mfr.	Control Voltage	Type	Contact Style	Contact Voltage	Contact Current	Pins	Fig.	Terminal Type	Agency Approval	Size L" x W" x H"	Pricing 1	10	50	100
Solid State Relays DC/AC Type																
153058	KSD203AC2	COSMO	4-32VDC	DC/AC	SPST	240VAC	3A	4	2	Solder Lead	—	1.4 x 0.3 x 0.9	**$9.95**	**$8.95**	**$7.95**	**$7.25**
139053	240D25	OPTO 22	3-32VDC	DC/AC	SPST	240VAC	25A	4	3	Screw Terminal	UL/CSA	2.3 x 1.7 x 1.0	**17.95**	**15.95**	**14.49**	**12.95**
162341	ESR51024-010 †	Excel	3-32VDC	DC/AC	SPST	240VAC	10A	4	4	Screw Terminal	UL	2.3 x 1.7 x 1.1	**14.95**	**13.49**	**11.95**	**10.49**
162368	ESR51024-025 †	Excel	3-32VDC	DC/AC	SPST	240VAC	25A	4	4	Screw Terminal	UL	2.3 x 1.7 x 1.1	**19.95**	**17.95**	**15.95**	**14.49**
163281	GA5-4D40	Gordos	3-32VDC	DC/AC	SPST	240VAC	30A	4	4	Screw Terminal	UL/CSA	2.3 x 1.8 x 0.9	**19.95**	**17.95**	**15.95**	**14.49**
162405	ESR51024-040 †	Excel	3-32VDC	DC/AC	SPST	240VAC	40A	4	4	Screw Terminal	UL	2.3 x 1.7 x 1.1	**22.95**	**19.95**	**17.95**	**15.95**
105081	615-8500	Teledyne	3-32VDC	DC/AC	SPST	250VAC	10A	4	3	Screw Terminal	UL	2.3 x 1.7 x 1.1	**14.95**	**13.49**	**12.95**	**11.49**
192815	KSD240AC8	COSMO	4-32VDC	DC/AC	SPST	250VAC	40A	4	3	Screw Terminal	—	2.3 x 1.8 x 0.6	**22.95**	**19.95**	**17.95**	**15.95**
175214	KB20C02A	Kyoto	3-32VDC	DC/AC	SPST	280VAC	2A	4	1	Solder Lead	—	1.4 x 0.3 x 1.5	**6.49**	**5.69**	**4.90**	**4.11**
173518	RLYB4280	Phillips	3-32VDC	DC/AC	SPST	280VAC	4A	4	6	Solder Lead	—	1.7 x 0.4 x 1.5	**9.95**	**8.95**	**7.99**	**7.25**
176698	KB20C06A	Kyoto	3-32VDC	DC/AC	SPST	280VAC	6A	4	1	Solder Lead	—	1.4 x 0.3 x 0.9	**9.95**	**8.95**	**7.95**	**6.95**
176719	KD20C40AX	Kyoto	3-32VDC	DC/AC	SPST	280VAC	40A	4	5	Screw Terminal	—	2.3 x 1.7 x 0.9	**19.95**	**17.95**	**15.95**	**14.49**
176727	KD20C50AX	Kyoto	3-32VDC	DC/AC	SPST	280VAC	50A	4	5	Screw Terminal	—	2.3 x 1.7 x 0.9	**29.49**	**26.55**	**26.55**	**14.49**
176735	KD20C75AX	Kyoto	3-32VDC	DC/AC	SPST	280VAC	75A	4	5	Screw Terminal	—	2.3 x 1.7 x 0.9	**34.95**	**31.49**	**27.95**	**24.95**
204441	TD2420Q	Crydom	4-15VDC	DC/AC	4PST	280VAC	20A	13	–	Solder Lead	UL/CSA	2.3 x 1.8 x 0.9	**49.95**	**44.95**	**39.95**	**39.95**
Solid State Relay DC/DC Type																
172591	KF0602D	Kyoto	3-32VDC	DC/DC	SPST	60VDC	2A	4	1	Solder Lead	—	1.4 x 0.3 x 0.9	**$9.95**	**$8.95**	**$7.95**	**$6.95**
175222	KF0604D	Kyoto	3-32VDC	DC/DC	SPST	60VDC	4A	4	1	Solder Lead	—	1.5 x 0.3 x 0.9	**11.95**	**11.25**	**10.25**	**9.22**

† Zero crossing

OMRON Solid State Relays

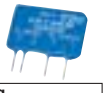
- Compact dimensions to provide uniform mounting pitch
- Pins: 4 • Type: DC/AC
- Built-in MOV effectively absorbs external surges
- Operation indicator (red LED) enables monitoring operation
- Protective cover for greater safety


187004


187063

Part Number	Product Number	Control Volt (VDC)	Contact Volt (VAC)	Contact Curr (max)	Size (L" x W" x H")	Pricing 1	25	50
G3NA Solid State Relays								
186992	G3NA-210B-DC5-24	5-24	240	10A	2.28 x 1.69 x 1.06	**$16.95**	**$15.25**	**$13.75**
187004	G3NA-220B-DC5-24	5-24	240	20A	2.28 x 1.69 x 1.06	**19.95**	**17.95**	**15.95**
G3NE Solid State Relays								
187063	G3NE-205T-USDC5	5	100/240	5A	1.87 x 1.48 x 0.45	**$10.95**	**$9.75**	**$8.79**

CRYDOM Solid State Relay



- SPST • Pins: 4

Part Number	Product Number	Control Voltage	Contact Voltage	Contact Current	Type	Size (L" x W" x H")	Pricing 1	10	50
127790	D2W202F	3.0 to 32VDC	280VAC	2A	solder lead	1.7 x 0.4 x 1.3	**$7.95**	**$7.19**	**$6.49**

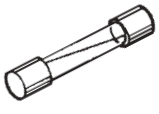
KYOTO DC/DC Solid State Relays

KG Series

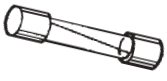
- 4 pins • Style: SPST • Type: DC/DC • Frequency range: 47-70Hz
- Must turn off voltage: 1.0VDC max. • Control voltage: 3-32VDC
- Input impedance: 1.5kΩ
- Output voltage: 120VDC
- Minimum blocking voltage: 140VDC
- Screw terminal


176655

Part Number	Product Number	Control Voltage	Contact Voltage @ Current	Size (L" x W" x H")	Pricing 1	10	50	100
176647	KG1005D	3-32VDC	120VDC @ 5A	2.3 x 1.7 x 0.9	**$24.95**	**$22.45**	**$20.20**	**$18.18**
176655	KG1010D	3-32VDC	120VDC @ 10A	2.3 x 1.7 x 0.9	**29.95**	**26.95**	**24.29**	**21.89**



For our selection of Fast Acting ACG / 3AG 250V Fuses, see page 67



Solid State Relay Cover



- For SS relay type KD/KG/KL relays
- Clear plastic
- Size: 2.4"L x 1.8"W x 1.0"H

Part No.	Mfr. Cross Ref. No.	1	10	50
176701	KSC1	**$.71**	**$.65**	**$.59**

SHARP Solid State Relays

DC to AC


164996

164988:
- Output: 125VAC @ 1.5A
- Input volt: 1.2V @ 20mA (If)
- On-state volt: 1.5Vrms
- Zero cross volt: 35V (If = 15mA)

164996:
- Effective on-state curr.: 2A rms
- Input voltage: 1.2V @ 20mA
- Output: 265VAC @ 2.5A
- Operating frequency: 45-65Hz
- Isolation volt: 3000V rms

Part No.	Product No.	1	10	50	100
164988	S101S02	**$3.95**	**$3.49**	**$2.95**	**$2.25**
164996	S202TA1	**4.45**	**3.95**	**3.49**	**3.15**

Don't worry about backorders. Over 99% of our products are in stock!



We'll Send It Today!

Just place your order by 6PM EST for same business day shipment

24VDC Liquid Level Sensors

Combine the control box and sensor to activate a water valve. When sensor is triggered by either a tank in full or empty condition, it will trigger an output status change.



176241

176241: Control Box
- Input voltage: 24VDC @ 10A
- Output voltage: 24VDC @ 10A
- Size: 2.1"L x 2.1"W x 1.6"H

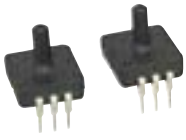
176250 (Full) / 176268 (Empty)
- Maximum contact rating: 10W
- Carry current: 1A
- Max. switching voltage: 100VDC
- Max. switching current: 0.5A
- Maximum contact resistance: 100mΩ
- Size: 2.6"L



176250

Part No.	Description	1	10	25
176241	Control box	$11.75	$10.25	$9.25
176250	Sensor full type	9.95	8.95	7.95
176268	Sensor empty type	11.45	10.30	9.27

Fujikura -1.1 to 2.5 PSI Pressure Sensor



- Measurable pressure range: -1.1 to 2.5 PSI
- Maximum load pressure: twice of rated pressure
- Operating voltage: 5V @ <10mA
- Maximum excitation voltage: 8V
- Pressure type: gauge pressure • Volt-level output
- Pressure media: non-corrosive gas
- On-chip amplification and temp. compensations
- Pre-calibration of offset voltage and span
- 1/8" diameter tubing is applicable
- Size: .55"L x .47"W x 0.2"H

SALE

Part No.	Product No.	1	10	100
196103	XFPN-025-KPGRNW1	$18.95	$14.21	$9.95

Fujikura 0 to 5 PSI Pressure Sensor



- Maximum load pressure: 10 PSI
- Output voltage: 0 – 4.5V
- Operating voltage: 5V @ 10mA
- Pressure type: gauge pressure
- Pressure media: non-corrosive gas
- Accuracy: ±0.125 PSI at 25˚C; ±0.250 PSI at -10 to 65˚C
- High level output, on-chip signal conditioned, temperature compensated, and calibrated
- 1/8" diameter tubing is applicable
- Size: 0.6"L x 0.5"W x 0.2"H

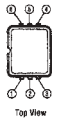
Part No.	Product No.	1	10	100
173657	XFPN-050-KPGT1	$15.95	$14.35	$12.95

Servoflo 0 to 7 PSI Pressure Sensor

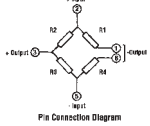
SALE



- Max. load pressure: 10.5 PSI
- Input excitation: 1.5mA
- Span output: 60-140mV
- Bridge resistance: 5kΩ ±1kΩ
- Accuracy: ±5% full scale
- High output, accuracy and stability • Low noise
- 1/8" diameter tubing is applicable
- Size: 0.5"L x 0.5"W x 0.2"H



Top View



Pin Connection Diagram

Part No.	Product No.	1	10	100
163731	FPM07PG	$11.95	$8.95	$6.29

12VDC Inductive Proximity Switch Sensors

Cylindrical and Square Styles

- Operating voltage range: 10-30VDC
- Nominal operating voltage: 12VDC
- Current consumption: 10mA max.
- Switching frequency: 1.5kHz
- Sensing target: inductive type – magnetic metal
- Sensing distance: ±10% (tin)
- Short circuit protected • LED status indicator
- Fast response • 6' long cable • Pre-tinned pigtail

155547 (17mm)





167020 (12mm)



155563 (12mm)



155571 (18mm)

Part Number	Product Number	Output Circuit	Effec. Dist. (Iron)	Std. Target (Iron) (mm)	Size (L" x W" x H")	Mounting Hole (in.)	Pricing 1	10	25
155547	S1805N1	NPN	0-4.0mm	17 x 17 x 1	1.4 x 1.4 x 0.7	0.112	$9.95	$8.95	$7.95
167020	TS1202N1	NPN	0-1.6mm	12 x 12 x 1	1.8"L x 0.46"Dia.	0.46	14.95	13.49	11.95
155563	TS1202P1	PNP	0-1.6mm	12 x 12 x 1	1.8"L x 0.46"Dia.	0.46	14.95	13.49	11.95
155571	TS1805N1	NPN	0-4mm	18 x 18 x 1	1.6"L x 0.70"Dia.	0.7	22.99	20.69	18.62

GORDOS-Type Digital I/O Modules

- Industry standard package and pinout
- High immunity to false operation
- 4,000Vrms optical isolation
- Continuous duty
- Color coded by function
- Capacitance: 8pF typical (input/output)

184541



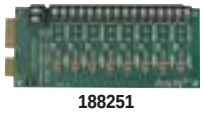
Part Number	Mfr. Cross Ref. No.	Description	Input Voltage	Output Voltage	Pricing 1	10	50
184541	ODC-5	DC output (red)	5VDC	3 to 60VDC @ 3A	$7.29	$6.85	$6.39
184524	OAC-5	AC output (black)	5VDC	120VAC @ 3A	7.29	6.85	6.39
184583	IDC-5	DC input (white)	3.3 to 32VDC	5VDC	8.49	7.65	6.88

GORDOS-Type Digital I/O Module Mounting Boards

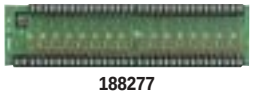
- Plug-compatible logic connections on 8, 16, 24 and 32 position boards
- Screw terminal barrier block for load connections
- All even-numbered logic connectors are logic ground
- Input and output modules accepted interchangeably
- Resident pull-up resistors
- 5 amp field-replaceable fuses
- LEDs indicate logic status
- Operate with 5, 15 or 24 volt logic supplies
- Captive-screw retaining system for standard size modules and "Quad-Packs"



188234



188251



188277

Part Number	Mfr. Cross Ref. No.	Type	Positions	Size (L x W)	Weight (lbs.)	Pricing 1	10
188234	21F854	PB-4	4	4.5" x 3.5"	0.3	$34.95	$31.45
188251	21F855	PB-8	8	8.0" x 3.5"	0.4	54.95	49.95
188277	94F4618	PB16T	16	14.1" x 3.5"	0.9	105.95	95.49

Ultrasonic Sensor Sets

- Use for motion or distance sensing
- Frequency: 40kHz ±1.0kHz
- Aluminum case

136653: Transmit/Receive Set
- Capacitance: 2000pF ±30%
- Case size: 0.47"H x 0.62" Dia.
- Transmitter: bandwidth 4.0kHz/112dB, sound pressure level 119dB/40±1.0kHz
- Lead length/spacing: 0.39"
- Receiver: bandwidth 3.5kHz @ -71dB, min. sensitivity 65dB/40±1.0kHz (0dB vs 1V µbar) R=3.9kΩ



136653

139491: Transmit/Receive Set
- Capacitance: 2000pF ±20%
- Lead length/spacing: 0.28"
- Transmitter: bandwidth 5.0kHz/100dB, sound pressure level 112dB/40 ±1.0kHz
- Receiver: bandwidth 5.0kHz @ -75dB, min. sensitivity 67dB/40 ±1.0kHz (0dB vs 1V µbar) R=3.9kΩ
- Case size: 0.30"H x 0.43" Dia.



139491

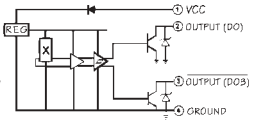
Part No.	Mfr. Cross Ref. No.	1	10	50
136653	40TR16F	$6.25	$5.49	$4.95
139491	40TR12B	6.25	5.49	4.95

Latched Hall Effect Sensors



- SP (south pole): on; NP (north pole): off
- Supply voltage: 20Vcc

169691: Complementary open collector, output compatible with all digital logic families



Parameters	P/N 174043	P/N 169691
Supply Current	4mA	25mA
Output Current	20mA	300mA
Max. Operating Point & Max. Release Point (gauss)	≤ 130	≤ 90

Part No.	Mfr. Cross Ref. No.	1	10	100	1000
174043	HI-300	$.86	$.68	$.52	$.33
169691	HI-400	.89	.81	.72	.65

Part Number Color Code: New Sale Refurbished Closeout

.100" and 2mm IDC Socket Connectors

Double Row


32563

- Mates with 2 rows of .025"Sq. or Dia. posts on patterns of .100" centers (male headers, see pg 81) • Current rating: 1A
- Industry standard IDC socket (plastic)
- Temperature rating: -55°C to +105°C
- Use P/N 73251, pg 121: insulation displacement connection crimper for these connectors

* **100386:** 2mm pin spacing

Polarized IDC Socket Connectors

Part No.	Mfr. Cross Ref. No.	Contacts	1	10	100	1000
32491	S10	10	**$.29**	**$.25**	**$.19**	**$.15**
153947	S14	14	**.32**	**.27**	**.21**	**.16**
119466	S16	16	**.35**	**.29**	**.22**	**.17**
32521	S20	20	**.39**	**.32**	**.25**	**.18**
32563	S26	26	**.45**	**.35**	**.29**	**.19**
32643	S34	34	**.49**	**.39**	**.35**	**.25**
32678	S40	40	**.55**	**.45**	**.39**	**.29**
100386*	IDC440	44 (2mm)	**.99**	**.89**	**.75**	**.59**
32707	S50	50	**.65**	**.55**	**.45**	**.35**
32758	S60	60	**.75**	**.65**	**.49**	**.39**

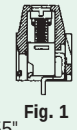
Non-Polarized IDC Socket Connectors

Part No.	Mfr. Cross Ref. No.	Contacts	1	10	100	1000
138376	SN10	10	**$.29**	**$.26**	**$.23**	**$.19**
138325	SN20	20	**.39**	**.35**	**.28**	**.19**
138333	SN26	26	**.39**	**.35**	**.29**	**.25**
138341	SN34	34	**.45**	**.39**	**.35**	**.29**
138350	SN40	40	**.49**	**.45**	**.39**	**.29**
138368	SN50	50	**.65**	**.55**	**.45**	**.35**

DINKLE .197" (5mm) Terminal Blocks

- Materials: housing: polyimide; solder: tin plated brass
- Lead spacing: .197" • Wire range: 12-24 AWG
- Contact rating: 300V @ 10A • PC mount
- Insulation resistance: 500MΩ or more @ 500V
- Modular housing: end-to-end stackability
- Terminals interlocking with same series

DT Series


Fig. 1


99397

DT128 Type (Side Entry)

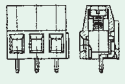
- Block width & height: .40" x .55"

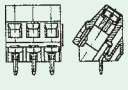
Part No.	Fig.	Term.	Block Lgth	1	10	100	1000
99426	1	2	0.4"....	**$.89**	**$.79**	**$.69**	**$.59**
99397	1	3	0.6".....	**.89**	**.79**	**.69**	**.59**

EK500 Series


160784


161066


Fig. 2


Fig. 3

EK500V Type (Side Entry)

- Block width & height: .40" x .55"

Part No.	Fig.	Term.	Block Lgth	1	10	100	1000
160784	2	2	0.4" ...	**$.75**	**$.65**	**$.50**	**$.43**
160792	2	3	0.6"	**.79**	**.69**	**.55**	**.45**

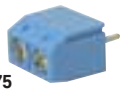
EK500A Type (45° Entry)

- Block width & height: .48" x .61"

Part No.	Fig.	Term.	Block Lgth	1	10	100	1000
161066	3	2	0.4" ...	**$.75**	**$.65**	**$.49**	**$.39**
161058	3	3	0.6"	**.79**	**.69**	**.55**	**.45**

OST .197" (5mm) Vertical Terminal Blocks

Side Entry

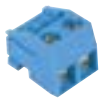

189675

- Rated voltage (UL): 250V
- Rated current: 15A
- Wire size: 22-14AWG
- PCB hole diameter: .050"
- Spacing: .197"
- Terminal block: copper zinc

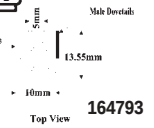
Part No.	Term.	Size (L"xW"xH")	1	10	100	1000
189675	2	.42 x .30 x .37	**$.69**	**$.62**	**$.55**	**$.49**
189667	3	.61 x .30 x .37	**.79**	**.69**	**.59**	**.49**

OST .197" (5mm) Terminal Blocks

- Screw size: M2.6
- Rated current: 10A; 300VAC
- Insulation resistance: >500MΩ @ 500VDC
- PCB hole diameter: 1.8mm
- Wire range: 14-24 AWG
- Materials: cage clamp/ terminal/pin header – tin plated brass
- Use with P/N 164814, pg 81


164793


164806

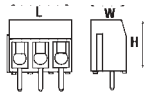


164793

Part No.	Term.	Size (L"xW"xH")	1	10	100	1000
164793	2	.40 x .54 x .43	**$.59**	**$.53**	**$.47**	**$.42**
164806	3	.60 x .54 x .43	**.89**	**.79**	**.69**	**.57**

OST .200" (5.08mm) Vertical Terminal Blocks

Side Entry

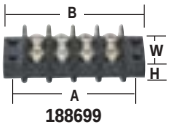



152346

- Rated voltage (UL): 250V
- Rated current: 15A
- Wire size: 14-22 AWG
- PCB hole diameter: .050"
- Spacing: .200"
- Insulating material: polyimide
- Terminal block: copper zinc
- Wire guard: copper nickel

Part No.	Term.	Size (L"xW"xH")	1	10	100	1000
152346	2	.42 x .35 x .49	**$.65**	**$.55**	**$.45**	**$.39**
152354	3	.62 x .35 x .49	**.75**	**.67**	**.59**	**.54**

KULKA® 601 GP Series Double Row Terminal Blocks



188699


188672

- Base: general purpose phenolic; 150°C
- Screws: #6-32, binder head, phillips-slot
- Terminals: brass plated • Width: 1.12"
- .437" (11 mm) centers • Height: .50"
- 1100Vrms; 20A ratings; for 14-16 AWG wires
- Open block design
- UL/CSA/CE approved

Part Number	Product Number	Poles	Dimensions A"	B"	1	10	50
188699	601GP4	4	2.19	2.50	**$1.69**	**$1.49**	**$1.35**
188681	601GP6	6	3.06	3.38	**2.39**	**2.19**	**1.89**
188672	601GP8	8	3.94	4.25	**2.95**	**2.75**	**2.49**
188664	601GP10	10	4.81	5.13	**3.49**	**3.25**	**2.95**
188701	601GP12	12	5.69	6.00	**5.49**	**4.95**	**3.95**

Card-Edge Connectors

- Fits all PC boards
- .054" to .070" thick


40694

Solder Eyelet .140" Spacing Between Rows

- Contact centers: .156 • With mounting ears

Part No.	Position	Contacts	1	10	100
39116	22/44	Gold	**$2.95**	**$2.49**	**$1.95**

Solder Tail .200" Spacing Between Rows SALE

- Contact centers: .100 • Without mounting ears

Part No.	Position	Contacts	1	10	100
40694	31/62	Tin (PC/AT)..	**$.99**	**$.74**	**$.52**
42091	49/98	Tin (AT)	**1.09**	**.89**	**.75**

entrelec DIN Rail-Mounted Terminal Block

Foot snaps onto standard DIN and DIN 2 rails. Terminals are positively retained on rails, but can be removed without disturbing adjacent units.


185914


185965
Sold in 1 meter (39") length

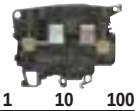
SALE

- Molded thermoplastic • Compression clamp
- Spacing 6mm (0.238") • 22-12 AWG wire

Part No.	Product No.	Type	1	10	100
185914	011511607	M4/6 ...	**$1.25**	**$1.09**	**$.99**
185965	017322005	PR30	**5.95**	**5.35**	**4.79**

entrelec Fuse-Holder Terminal Block

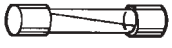
- Standard block • 13mm block
- For use with 0.25" x 1" and 0.25" x 1.25" fuses, below



Part No.	Product No.	Type	1	10	100
186010	019909513	ML10/13SF	**$6.95**	**$6.25**	**$5.49**

.25" x 1.25" Standard Fast Acting Fuses (250V)

AGC/3AG Fuses

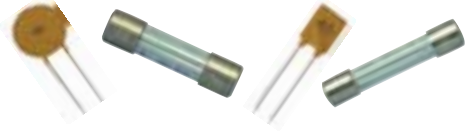


- For ML10/13 fuse holder terminal blocks, above

✳ **Prepackaged: order in increments of 10, 100 or 1000**

Part No.	Amps	Mfr.	1	10	100	1000
69403	250mA	Various ..... ✳	**$.20**	**$.18**	**$.16**	
10410	500mA	Various ..... ✳	**.20**	**.18**	**.16**	
197510	630mA	Various ..... ✳	**.20**	**.18**	**.16**	
10372	1 amp	Various ..... ✳	**.20**	**.18**	**.16**	
197528	1.6 amp	Various ..... ✳	**.20**	**.18**	**.11**	
10381	2 amp	Various ..... ✳	**.20**	**.18**	**.16**	
197536	2.5 amp	Various ..... ✳	**.20**	**.18**	**.16**	
69438	3 amp	Various ..... ✳	**.20**	**.18**	**.13**	
197544	4 amp	Various ..... ✳	**.20**	**.18**	**.16**	
10401	5 amp	Various ..... ✳	**.20**	**.18**	**.16**	
197552	6.3 amp	Various ..... ✳	**.20**	**.18**	**.16**	
69462	10 amp	Various ..... ✳	**.23**	**.22**	**.18**	
186301	16 amp	Various ..... ✳	**.20**	**.18**	**.16**	

More Fuses on Page 67



.100" Non-Polarized Connector Housings and Crimp Pins

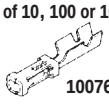
- Mates with .025" square post on pattern of .100" centers (male headers, see pg 82)
- Current rating: 1A • Pin material: brass/tin plated
- Pin wire gauge: 26-22 AWG • Plastic
- Temperature rating: -55°C to +105°C
- Use 159265 pin crimper, pg 121 & 100765 below

✳ **Prepackaged: please order in increments of 10, 100 or 1000**



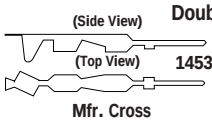
Single Row

103190



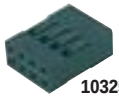
100765

Part No.	Mfr. Cross Ref. No.	Contacts	1	10	100	1000
100811	SCH2	2 ..... ✳	**$.23**	**$.17**	**$.14**	
157382	SCH3	3 ..... ✳	**.25**	**.19**	**.15**	
100802	SCH4	4 ..... ✳	**.29**	**.25**	**.19**	
163686	SCH5	5 ..... ✳	**.26**	**.25**	**.19**	
103211	SCH6	6 ..... ✳	**.31**	**.27**	**.21**	
103202	SCH8	8 ..... ✳	**.35**	**.29**	**.25**	
103190	SCH10	10 ..... **.42**	**.39**	**.36**	**.31**	
103181	SCH20	20 ..... ✳	**.45**	**.39**	**.35**	
103157	SCH36	36 ..... **.49**	**.45**	**.39**	**.35**	
100765	FCH1	Female pin ... ✳	**.11**	**.09**	**.06**	
145357	MCH1	Male pin ..... ✳	**.13**	**.11**	**.09**	



Double Row

145357



103253

Part No.	Mfr. Cross Ref. No.	Contacts	1	10	100	1000
103253	DCH8	8 ..... **$.59**	**$.53**	**$.45**	**$.39**	
157420	DCH10	10 ..... **.69**	**.62**	**.55**	**.49**	
157438	DCH14	14 ..... **.79**	**.69**	**.62**	**.55**	
103237	DCH16	16 ..... **.89**	**.71**	**.54**	**.39**	
103229	DCH20	20 ..... **.99**	**.89**	**.79**	**.69**	
157462	DCH40	40 ..... **1.09**	**.99**	**.89**	**.75**	
157471	DCH50	50 ..... **.65**	**.59**	**.53**	**.47**	
100765	FCH1	Female pin ... ✳	**.11**	**.09**	**.06**	
145357	MCH1	Male pin ..... ✳	**.13**	**.11**	**.09**	

.100" and 2mm Shorting Blocks

- Mates to .025" square posts on .100" centers
- Shorting socket jumper to address or code strip line plugs



22023 (open)



112432 (closed)

- Mate with male headers, pg 82
- Pin material: phosphor bronze

Open: open on top to allow for a test point while **Closed:** closed – functionally they are the same

119263: 2mm shorting block (for disk drives)

✳ **Prepackaged: please order in increments of 10, 100 or 1000**

Part No.	Description	1	10	100	1000
22023	Top open, black ..... ✳	**$.12**	**$.09**	**$.06**	
119263	Top open, black (2mm) .. ✳	**.17**	**.14**	**.11**	
112424	Top open, blue ..... ✳	**.12**	**.09**	**.06**	
112416	Top open, red ..... ✳	**.12**	**.09**	**.06**	
19140	Top closed, black ..... ✳	**.12**	**.09**	**.06**	
112441	Top closed, blue ..... ✳	**.12**	**.09**	**.06**	
112432	Top closed, red ..... ✳	**.14**	**.11**	**.07**	

.100" Shorting Block w/ Handle

- Mates w/ .100" male headers, pg 82

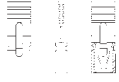


Ratings: • Current: 3A

- Accessible test point in handle
- Contact resistance: 20mΩ max.

Material: • Plastic: PBT, glass filled

- Contact: phosphor bronze



✳ **Prepackaged: please order in increments of 10, 100 or 1000**

Part No.	Description	1	10	100	1000
152670	.100" shorting block .... ✳	**$.19**	**$.15**	**$.12**	

.100" Low Profile Keyed Shrouded Headers and Connector

CD-ROM 4-Pin Headers and Connector



152741



152725



152733

- Voltage rating: 250V AC/DC
- Current rating: 3A AC/DC
- Insulation resistance: 1000MΩ min.
- Connector material: PBT, 30% glass
- Header material: PBT + 30% glass
- Withstanding voltage: 1000V AC/minute
- Pin material: tin-plated brass
- Recommended crimp tool P/N 99442, pg 121

† P/N 152733 requires 4 pins (P/N 181673)

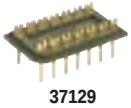
✳ **Prepackaged: please order in increments of 10, 100 or 1000**

Part No.	Description	1	10	100	1000
152741	Strght header	**$.45**	**$.39**	**$.35**	**$.29**
152725	Right angle header ...	**.55**	**.49**	**.42**	**.35**
152733†	Single w/ latch	**.55**	**.45**	**.35**	**.25**
181673	Female pins ..... ✳		**.11**	**.08**	**.06**

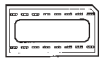
.100" DIP Header Plugs

- Gold-plated leads
- Header plugs: keyed corner to indicate pin 1
- U-shaped pin termination for easy component attachment
- Lead length: .188"
- 0.1" spacing between leads

* 134922 is tin-plated



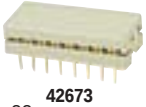
37129



Part No.	Mfr. Cross Ref. No.	Width	Pins	1	10	100
104336	8HP	0.3"	8	**$.79**	**$.67**	**$.57**
134922*	14THP	0.3"	14	**.99**	**.85**	**.69**
37129	14HP	0.3"	14 ...	**1.19**	**.99**	**.89**
37330	16HP	0.3"	16 ...	**1.29**	**1.15**	**1.05**
38578	20HP	0.3"	20 ...	**1.49**	**1.35**	**1.19**

.100" IDC DIP Flat Cable Plugs

- Mates with standard 14, 16, 20, 24, 26, 28 & 40-pin DIP sockets with 0.1" spacing • Plastic
- Plastic with Gold-Plated contacts
- Uses 28 AWG flat ribbon cable, pg 88
- Current rating: 1 amp



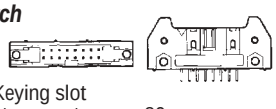
42673

Part No.	Mfr. Cross Ref. No.	Width	Contacts	1	10	100	500
42657	609-14	0.3"	14	**$.45**	**$.33**	**$.29**	**$.22**
42673	609-16	0.3"	16 ...	**.45**	**.35**	**.29**	**.25**
104096	609-20	0.3"	20 ...	**.55**	**.47**	**.42**	**.36**
42690	609-24	0.6"	24 ...	**.59**	**.53**	**.47**	**.39**
99670	609-28	0.6"	28 ...	**.79**	**.71**	**.59**	**.47**
42711	609-40	0.6"	40 ...	**.89**	**.80**	**.66**	**.59**

.100" (2.5mm) Straight Male Headers

With Standard Latch

Double Row



- 0.1" contact center
- Mount vertical • Keying slot
- Use with IDC socket connectors, pg 80

Part No.	Description	1	10	100	500
117663	10-pin	**$.99**	**$.79**	**$.59**	**$.41**
71829	20-pin	**.99**	**.85**	**.69**	**.59**
71933	26-pin	**1.19**	**.95**	**.79**	**.69**
72215	50-pin	**1.39**	**1.19**	**.99**	**.85**

.156" (3.9mm) Center Straight-Friction Lock Headers



- Ideal for AC and DC power distribution
- Voltage rating: 250VAC/VDC max.
- Current rating: 7 amps AC/DC
- Contact resistance: 20mΩ
- Temperature range: -25°C to +85°C
- Header material: pin - brass/tin-plated
- Base: nylon 66, UL94V-2

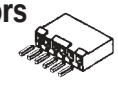


104811

✳ **Prepackaged: please order in increments of 10, 100 or 1000**

Part No.	Mfr. Cross Ref. No.	Pins	1	10	100	1000
104791	LMH4	4 ..... ✳	**$.11**	**$.09**	**$.07**	
104803	LMH5	5 ..... ✳	**.14**	**.11**	**.09**	
104811	LMH6	6 ..... ✳	**.15**	**.12**	**.10**	
104838	LMH8	8 ..... **.25**	**.19**	**.15**	**.12**	
104846	LMH10	10 ..... **.29**	**.25**	**.19**	**.15**	

.156" (3.9mm) Center Housing Connectors



- Common to many power supplies carried by Jameco. Some power supplies (pgs 48-0) may require multiple connectors
- Housing material: nylon 66, UL94V-2
- Use with crimp pins, 78318, below



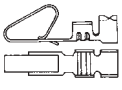
104731

✳ **Prepackaged: please order in increments of 10, 100 or 1000**

Part No.	Mfr. Cross Ref. No.	Pins	1	10	100	1000
176743	LCH2	2 ..... ✳	**$.85**	**$.65**	**$.45**	
104432	LCH3	3 ..... ✳	**.18**	**.14**	**.11**	
104715	LCH4	4 ..... ✳	**.19**	**.15**	**.12**	
104723	LCH5	5 ..... ✳	**.24**	**.18**	**.14**	
104731	LCH6	6 ..... **.32**	**.29**	**.22**	**.17**	
104766	LCH10	10 ..... **.35**	**.29**	**.25**	**.19**	

.156" (3.9mm) Center Crimp Pin

- Use with .156 housings (above)
- Use 159265 crimping tool, pg 121
- Material: brass/tin plated
- Pin wire gauge: 22-26 AWG



✳ **Prepackaged: please order in increments of 10, 100, 1000**

Part No.	Mfr. Cross Ref. No.	1	10	100	1000
78318	AMP501T ..... ✳	**$.10**	**$.065**	**$.055**	

.156" Female Crimp Pins

SALE

- Pin wire gauge: 18-22 AWG
- Material: tin-plated brass
- Use 99442 crimping tool, pg 121

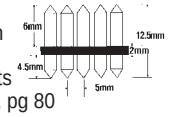


✳ **Prepackaged: please order in increments of 10, 100 or 1000**

Part No.	Mfr. Cross Ref. No.	1	10	100	1000
154093	LRPIN ..... ✳	**$.07**	**$.05**	**$.035**	

.197" (5mm) Male Header

- 24-pin • Spacing: .197"
- Snap apart to fit your application
- Contact pin: tin plated brass
- Color: black • 0.05" round posts
- Use with P/N 164793 & 164806, pg 80



Part No.	Mfr. Cross Ref. No.	1	10	100
164814	TBH24	**$2.25**	**$1.95**	**$1.75**

See the yellow highlighted items.

Special Jameco Values!

Details on Page 5

Part Number Color Code: New Sale Refurbished Closeout

.100" Male Headers (Gold)

- Snap apart to fit your application • Solder to PC boards for instant plug-in access via shorting blocks, pg 81
- Contact material: phosphor bronze • Current rating: 1 amp
- Contact area: gold • Temp. range: -55°C to +120°C
- Insulation material: glass filled polyester
- .025" square posts on a .100" x .100" matrix
- Use with crimp connector housing, pg 81

✳**Prepackaged: please order in increments of 10, 100 or 1000**

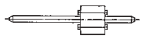

109567

53575

103376

153728

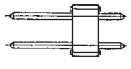
.100" Straight Male Headers
Single Row



109575

Part No.	Mfr. Cross Ref. No.	Contacts	1	10	100	1000
108337	SMH02	2 ..... ✳	$.12	$.10	$.09	
109575	SMH03	3 ..... ✳	.12	.10	.09	
117559	SMH04	4 ..... ✳	.12	.10	.09	
153699	SMH06	6 ..... ✳	.12	.10	.09	
153701	SMH08	8 ..... ✳	.17	.14	.12	
103392	SMH10	10 ..... ✳	.14	.12	.11	
103376	SMH17	17 ..... ✳	.20	.18	.16	
103368	SMH20	20 ..... ✳	.22	.20	.18	
202825	SMH22	22 ..... ✳	.21	.18	.16	
103350	SMH25	25 ..... ✳	.23	.21	.18	
103341	SMH30	30	.35	.31	.28	.25
68339	SMH36	36	.42	.38	.34	.29
160881	SMH40	40	.45	.39	.35	.31

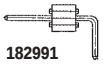
.100" Straight Male Headers
Double Row



67820

Part No.	Mfr. Cross Ref. No.	Contacts	1	10	100	1000
115027	923804DS	4 ..... ✳	$.10	$.09	$.07	
115035	923806DS	6 ..... ✳	.18	.16	.14	
109516	923808DS	8 ..... ✳	.18	.16	.14	
67820	923810DS	10 ..... ✳	.18	.16	.14	
203810	923812DS	12	.56	.51	.46	.41
118455	923814DS	14	.35	.31	.27	.24
109567	923816DS	16	.35	.31	.27	.24
203828	923818DS	18	.59	.53	.48	.43
53479	923862DS	20	.47	.42	.38	.34
203836	923822DS	22	.59	.53	.48	.43
203844	923824DS	24	.59	.53	.48	.43
53495	923863DS	26	.42	.38	.34	.29
203852	923828DS	28	.59	.53	.48	.43
203879	923830DS	30	.59	.53	.48	.43
203861	923832DS	32	.59	.53	.48	.43
53516	923864DS	34	.42	.38	.34	.29
203887	923836DS	36	.65	.59	.53	.48
203895	923838DS	38	.65	.59	.53	.48
53532	923865DS	40	.42	.38	.34	.29
53559	923866DS	50	.42	.38	.34	.29
68574	923860DS	60	.54	.49	.44	.39
103405	923872DS	72	.66	.59	.50	.45
117196	923880DS	80	.83	.75	.67	.60

.100" Right Angle Male Headers
Single Row

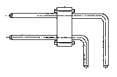

182991

153728

*Low profile

Part No.	Mfr. Cross Ref. No.	Contacts	1	10	100	1000
153728	RMH08	8	$.34	$.31	$.24	$.18
182991	RMH08LP*	8	.29	.25	.20	.15
103270	RMH36	36	.55	.45	.40	.26

.100" Right Angle Male Headers
Double Row



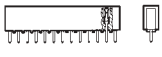
53575

Part No.	Mfr. Cross Ref. No.	Contacts	1	10	100	1000
203908	923804DR	4	$.59	$.53	$.48	$.43
203916	923806DR	6	.59	.53	.45	.39
203924	923808DR	8	.59	.53	.42	.30
203932	923810DR	10	.59	.53	.48	.35
203941	923812DR	12	.65	.59	.53	.43
203959	923814DR	14	.65	.59	.53	.45
203967	923816DR	16	.65	.59	.53	.48
203975	923818DR	18	.69	.62	.56	.50
53575	923820DR	20	.49	.44	.39	.35
203983	923822DR	22	.69	.62	.56	.50
203991	923824DR	24	.69	.62	.56	.50
53583	923826DR	26	.52	.47	.31	.23
204003	923828DR	28	.69	.62	.56	.48
204011	923830DR	30	.75	.67	.60	.54
204020	923832DR	32	.75	.67	.60	.54
204054	923834DR	34	.79	.71	.64	.58
204046	923836DR	36	.79	.71	.64	.58
204038	923838DR	38	.75	.67	.60	.54
53604	923840DR	40	.65	.54	.38	.26
53612	923850DR	50	.65	.55	.35	.25
103413	923872DR	72	.89	.69	.59	.45
139563	923880DR	80	.99	.86	.74	.49

.100" (2.5mm) Female Header Receptacles

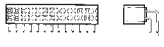
- Gold plated contacts • 0.1" contact center

Vertical Mount (Top Entry)



Part No.	Contacts	Type	1	10	100	500
70754	8	Single row	$.35	$.29	$.19	$.17
200782	12	Single row	.69	.62	.56	.50
70720	16	Double row	.75	.65	.59	.53
70826	20	Double row	.89	.79	.69	.59
105056	30	Double row	.79	.71	.64	.57
163862	34	Double row	.79	.71	.64	.57
111704	40	Double (Tin) ..	1.29	1.15	.99	.89

Right Angle Mount (Side Entry)



Part No.	Contacts	Type	1	10	100	500
71159	20	Double row	$1.09	$.95	$.85	$.75

.100" Low-Profile Straight Male Shrouded Headers

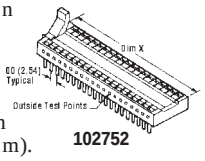
- Features: UL recognized, CSA certified; .025" square post mates with sockets on .100" x .100" grid
- Contact: phosphor bronze, gold plated
- Material: glass filled polyester, gray, UL94V-0
- Use with IDC socket connectors, pg 80


68179

Part No.	Description	1	10	100	1000
67811	10-pin	$.39	$.35	$.32	$.28
68179	16-pin	.39	.35	.32	.28
68291	20-pin	.42	.38	.34	.20
68371	26-pin	.45	.35	.29	.17
68582	34-pin	.55	.43	.31	.21
181104	40-pin	.55	.42	.35	.23

ARIES Low Profile ZIF Sockets

Provides a low cost solution for ZIF test socket requirements. It has a height of only .319" (8.10mm), and even with the handle in open position measures just .554"(14.07mm).



102752

- Strong rigid cast metal cam provides uniform action over entire contact area

Part No.	Aries No.	Pins	Dim X	1	10	100
102744	28-526	28	1.64"	$5.49	$4.95	$4.25
102752	40-526	40	2.24" ...	6.49	5.95	5.25

ARIES Universal ZIF Sockets

- Solder directly to PCB or plug directly into IC socket
- Screw mounting holes for reliable operation
- Accepts .300" to .600" IC centers x .1" spacing


103991

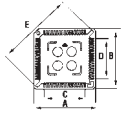
Part No.	Aries No.	Pins	1	10	100
103991	24-6554-10	24	$7.49	$6.79	$5.99
104002	28-6554-10	28	8.49	7.79	6.99
104011	32-6554-10	32	9.95	8.49	8.29
104029	40-6554-10	40	11.95	10.59	9.95

PLCC Surface Mount Sockets

- Current: 1A
- Dielectric strength: 600VAC for 1 minute
- Insulator resistance: 5000MΩ minimum
- Temperature surface mount: -55˚C/ +170˚C

SALE


152688



Dimensions in mm

Part #	A & B	C & D	E
152688	23.18	12.70	28.50
152696	30.80	20.32	40.00

Part No.	Mfr. Cross Ref. No.	Pins	1	10	50	100
152688	PLCC44D	44 ...	$.99	$.72	$.42	$.32
152696	PLCC68D	68	.85	.77	.69	.62

PLCC Solder Tail Sockets

- Solder tail allows through-hole board patterns in .100" grid
- Accepts JEDEC type "A" plastic leaded chip (0.05" centers)
- Thru-hole lead length: .125"
- Body height: .375"


71968

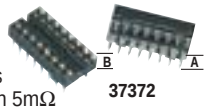
Part No.	Mfr. Cross Ref. No.	Pins	1	10	50	100
71263	G1P428	28 ...	$.45	$.35	$.27	$.19
71811	G1P432	32	.99	.89	.71	.47
71618	G1P444	44	.99	.79	.65	.55
72442	G1P452	52	.99	.79	.65	.55
71968	G1P468	68 ...	1.15	.99	.89	.79
71976	G1P484	84 ...	1.29	1.15	.90	.59

Phone 1-800-831-4242
Online www.Jameco.com
Order Anytime 24x7x365
Fax 1-800-237-6948

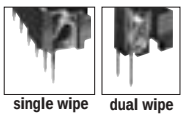

More Headers, Terminal Blocks, Connectors and Shorting Blocks
See two previous pages

Solder Tail Low Profile Sockets

- Material: beryllium copper or phosphor bronze
- Contact current: 1A
- Tin-plated contacts and tails
- Contact resistance: less than 5mΩ
- Dielectric withstanding voltage: 300Vrms
- Insulation resistance: greater than 1000MΩ
- Insulator: glass-filled polyesteror glass-filled polyphenylene sulfide
- Sleeve material: brass
- Thru-hole lead lgth: .140" (A)
- Body height: .188" (B)



37372


single wipe dual wipe

Single Wipe

- **Prepackaged: order in increments of 10, 100 or 1000**

Part No.	Mfr. Cross Ref. No.	Pins	Width (in.)	10	100	1000
51570	8LP	8	0.3	$.07	$.06	$.05
37161	14LP	14	0.3	.07	.06	.05
37372	16LP	16	0.3	.10	.09	.06
38113	18LP	18	0.3	.11	.09	.07
38607	20LP	20	0.3	.12	.10	.07
39132	22LP	22	0.4	.12	.10	.07
39378	24SLP	24	0.3	.19	.12	.06
39335	24LP	24	0.6	.14	.09	.05
40301	28LP	28	0.6	.19	.13	.09
41110	40LP	40	0.6	.17	.14	.10

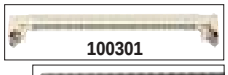
Dual Wipe

- **Prepackaged: order in increments of 10, 100 or 1000**

Part No.	Mfr. Cross Ref. No.	Pins	Width (in.)	10	100	1000
112192	6LPD	6	0.3	$.09	$.06	$.05
112205	8LPD	8	0.3	.08	.07	.06
112213	14LPD	14	0.3	.09	.08	.07
112221	16LPD	16	0.3	.12	.10	.08
112230	18LPD	18	0.3	.14	.12	.105
112248	20LPD	20	0.3	.15	.12	.09
112281	24SLPD	24	0.3	.15	.12	.07
112264	24LPD	24	0.6	.17	.14	.11
112299	28SLPD	28	0.3	.19	.17	.15
112272	28LPD	28	0.6	.19	.15	.11
112301	32LPD	32	0.6	.15	.11	.08
112310	40LPD	40	0.6	.22	.19	.16
167396	48LPD	48	0.6	.35	.32	.29
112326	64LPD	64	0.9	.39	.29	.19

SIMM and SIPP Sockets

- Locking tabs
- Tinned contacts
- Memory module sockets
- Keyed mounting posts


100301


78641


104053

SALE

SIMM Sockets

Part No.	Description	1	10	100	500
100301	Single x 30-pin, vert.	$.99	$.89	$.69	$.59
72531	Dual x 30-pin, vert.	.25	.15	.12	.09
203203	Single x 68-pin vert.	.89	.75	.59	.49
72426	Single x 72-pin vert.	.99	.79	.59	.41

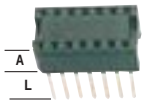
SIPP Sockets

Part No.	Description	1	10	100	500
102200	Single x 10-pin	$.36	$.24	$.22	$.20
192840	Single x 11-pin	.49	.39	.25	.21
78641	Single x 30-pin	.79	.69	.59	.53
175919	Single x 36-pin	1.09	.99	.89	.79
101282	Single x 20-pin WW2†	1.49	1.19	.89	.65
104053	Single x 30-pin WW3*	1.95	1.75	1.49	1.35

† Lead length: .435"(2) * Lead length: .575" (3)

Level 1, 2 & 3 Wire Wrap Sockets

- Contact plating/leads: gold (**WW**) or tin (**TWW**); **Dual Wipe**
- Material: beryllium copper or phosphor bronze
- Contact current: 1A
- Contact resistance: less than 5mΩ
- Dielectric withstanding voltage: 300Vrms
- Insulation resistance: greater than 1000MΩ
- Insulator: glass-filled polyester or glass-filled polyphenylene sulfide
- Thru-hole lead lgth: .315" (L1); .438" (L2); .638" (L3)
- Sleeve material: brass • Body height: .300" (A)



37233

Gold (WW)

Part No.	Mfr. Cross Ref. No.	Pins	Width (in.)	1	10	100	500
51641	8WW2	8	0.3	$1.25	$1.09	$.99	$.89
196832	14WW1	14	0.3	1.25	.99	.75	.55
37233	14WW2	14	0.3	1.49	1.35	1.19	1.09
37479	16WW2	16	0.3	1.75	1.59	1.43	1.29
196859	18WW3	18	0.3	1.95	1.59	1.19	.89
38674	20WW2	20	0.3	2.25	1.99	1.82	1.65
39394	24WW2	24	0.6	2.59	2.33	2.09	1.89
40352	28WW2	28	0.6	3.09	2.79	2.49	2.25
41187	40WW2	40	0.6	3.59	3.25	2.89	2.59

Tin (TWW)

Part No.	Mfr. Cross Ref. No.	Pins	Width (in.)	1	10	100	500
112660	8TWW2	8	0.3	$.99	$.89	$.79	$.69
37217	14TWW2	14	0.3	1.15	1.03	.93	.84
196841	14TWW3	14	0.3	.95	.75	.57	.39
37436	16TWW2	16	0.3	1.29	1.15	1.05	.95
87636	18TWW2	18	0.3	1.49	1.35	1.19	1.09
75379	20TWW2	20	0.3	1.69	1.52	1.35	1.23
75416	24TWW2	24	0.6	1.85	1.49	1.10	.79
75424	28TWW2	28	0.6	2.19	1.95	1.79	1.59
41179	40TWW2	40	0.6	2.95	2.65	2.39	2.15

Wire Wrap Socket I.D. Markers



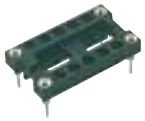
- Quick identification of pin numbers
- Slips onto socket before wrapping
- Plastic
- Can easily write location, part number or function


37145

Part No.	Prod. No.	Pins	Width (in.)	1	10	100	500
51561	8ID	8	0.3	$.39	$.30	$.25	$.22
37145	14ID	14	0.3	.29	.26	.23	.20
37356	16ID	16	0.3	.29	.26	.23	.22
38105	18ID	18	0.3	.55	.49	.41	.32
38586	20ID	20	0.3	.55	.49	.39	.35
39327	24ID	24	0.6	.55	.52	.41	.32
40299	28ID	28	0.6	.65	.55	.45	.41
41101	40ID	40	0.6	.89	.75	.65	.60

14-Pin Crystal Oscillator Socket

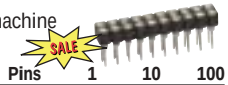
- Can be PCB mounted without the modifications that would be needed with DIP-IC sockets
- Low profile solder tail; machine tooled on 4 pins
- For full-can oscillators, pg 28
- Good for prototyping and PCB mounting



Part No.	Description	1	10	100	1000
133006	Oscillator socket	$.59	$.45	$.39	$.35

.100" MIL-MAX Female Socket

- Single in-line dual row; machine tooled pins; solder tail

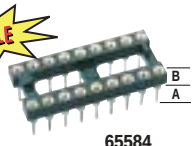

SALE

Part No.	Mfr. Cross Ref. No.	Pins	1	10	100
184612	20DILS	20	$.49	$.35	$.27

Machine Tooled Solder Tail Low Profile Sockets

- Contact plating: gold
- Tin-plated leads
- Contact current: 3A
- Multiple contact elements
- Material: beryllium copper or phosphor bronze
- Contact resistance: less than 5mΩ
- Dielectric withstanding voltage: 300Vrms
- Insulation resistance: greater than 1000MΩ
- Insulator: glass-filled polyester or glass-filled polyphenylene sulfide • Sleeve material: brass
- Thru-hole lead length: .177" (A)
- Body height: .117" (B)

SALE

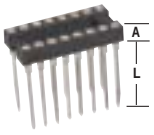


65584

Part No.	Mfr. Cross Ref. No.	Pins	Width (in.)	1	10	100	1000
167003	6MLPT	6	0.3	$.29	$.22	$.17	$.14
51625	8MLP	8	0.3	.25	.22	.19	.17
37196	14MLP	14	0.3	.42	.38	.33	.30
37401	16MLP	16	0.3	.47	.43	.37	.34
65584	18MLP	18	0.3	.55	.49	.43	.39
38623	20MLP	20	0.3	.59	.55	.45	.39
192209	224SMLP	22	0.4	.59	.49	.35	.25
39386	24SMLP	24	0.3	.75	.60	.45	.31
39351	24MLP	24	0.6	.75	.65	.49	.45
114411	28SMLP	28	0.3	.85	.75	.65	.55
184680	284SMLP	28	0.4	.85	.75	.65	.55
40328	28MLP	28	0.6	.85	.75	.65	.55
105380	32MLP	32	0.6	.95	.85	.75	.65
41136	40MLP	40	0.6	1.19	1.05	.79	.69
42059	48MLP	48	0.6	1.39	1.25	1.09	.95
200707	64MLP	64	0.9	1.89	1.69	1.53	1.37

Level 1, 2 & 3 Machine Tooled Wire Wrap Sockets

- Contact plating: gold
- Tin-plated leads
- Contact current: 3A
- Contact resistance: less than 5mΩ
- Dielectric withstanding voltage: 300Vrms
- Material: beryllium copper or phosphor bronze
- Insulation resistance: greater than 1000MΩ
- Insulator: glass-filled polyester or glass-filled polyphenylene sulfide
- Sleeve material: brass
- Thru-hole lead lgth: .315" (L1); .365" (L2); .515" (L3)
- Body height: .115" (A)



37410

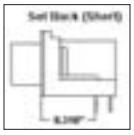
Part No.	Mfr. Cross Ref. No.	Pins	Width (in.)	1	10	100	500
94473	8MSWW3	8	0.3	$.53	$.46	$.38	$.34
62050	14MSWW3	14	0.3	.93	.80	.67	.60
37410	16MSWW3	16	0.3	1.09	.93	.78	.69
196891	18MSWW2	18	0.3	1.09	.89	.75	.75
94481	18MSWW3	18	0.3	1.20	1.03	.86	.77
196883	20MSWW2	20	0.3	1.19	1.09	.89	.79
38631	20MSWW3	20	0.3	1.33	1.14	.95	.86
185324	22MSWW3	22	0.3	1.49	1.29	1.15	.99
192831	224MSWW3	22	0.4	1.49	1.19	.89	.63
105371	24SMSWW3	24	0.3	1.60	1.39	1.19	1.03
196867	24MSWW2	24	0.6	1.49	1.19	.89	.65
94490	24MSWW3	24	0.6	1.60	1.37	1.14	1.03
196875	28MSWW1	28	0.6	1.35	1.09	.81	.59
200715	283MSWW3	28	0.3	1.86	1.60	1.35	1.19
40336	28MSWW3	28	0.6	1.85	1.59	1.25	1.15
117057	32MSWW3	32	0.3	2.19	1.79	1.55	1.35
94502	40MSWW3	40	0.6	2.66	2.28	1.90	1.71
200723	48MSWW3	48	0.6	2.99	2.69	2.42	2.18
200731	64MSWW3	64	0.9	3.99	3.59	3.23	2.91

D-Subminiature Connectors

- Metal shells are tin-plated for improved EMI/RFI shielding
- Insulation resistance: minimum 1000MΩ at 500VDC
- Dielectric withstanding voltage: 1000V (one minute)
- Current rating: 1A to 5A
- High temperature thermoplastic
- Insulation material: PBT, UL rated 94V-0

Right Angle PC Mount Connectors

0.318" Set Back



- Short style
- Lead length: .138"
- Lead spacing: .115"
- Shell: metal
- Current rating: 1A

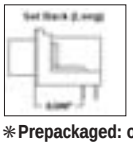
* High Density



15149

Part No.	Mfr. Cross Ref. No.	Cont.	Gender	1	10	100	500
104942	DB9P318	9	M	$.49	$.39	$.29	$.20
104951	DB9S318	9	F	.55	.48	.42	.36
71124	DA15P318	15	M	.65	.59	.48	.40
77956	DA15S318	15	F	.65	.55	.45	.36
168743	HDDB15P318*	15	M	.49	.42	.34	.31
71466	HDDB15S318*	15	F	.59	.47	.35	.25
15149	DB25P318	25	M	.79	.65	.55	.42
15181	DB25S318	25	F	.79	.70	.62	.43
71706	DC37P318	37	M	.99	.85	.72	.59
78182	DC37S318	37	F	.99	.79	.59	.39

0.590" Set Back



- Long style
- Lead length: .178"
- Lead spacing: .104"
- Current rating: 1A



104977

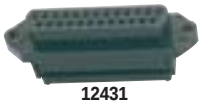
✳**Prepackaged: order in increments of 10, 100 or 1000**

† **189624:** without board tabs

Part No.	Mfr. Cross Ref. No.	Cont.	Gender	Shell	1	10	100
15763	DB9P590PL	9	M	plastic ✳	$.24	$.21	
104969	DB9P590	9	M	metal	.99	.83	.72
104977	DB9S590	9	F	metal	.89	.75	.65
104993	DA15S590	15	F	metal	.99	.85	.59
189624	DB25P590†	25	M	metal	.85	.76	.69
105005	DB25P590	25	M	metal	.99	.89	.79
105013	DB25S590	25	F	metal	1.19	.99	.89

IDC Ribbon Cable Connectors

- Current rating: 1 amp
- Temp range: -55°C to +120°C
- Insulation material: glass-filled polyester
- Contact material: phosphor bronze
- Terminates with standard D-type connectors



12431

† **109225/109217:** require flat cable w/ .625" centers

Part No.	Mfr. Cross Ref. No.	Cont.	Gender	Shell	1	10	100
109225	MDB9P†	9	M	metal	$1.35	$1.09	$.95
12503	CDB9P	9	M	plastic	2.49	1.79	1.59
109217	MDB9S†	9	F	metal	1.35	1.09	.95
12520	CDB9S	9	F	plastic	1.99	1.79	1.59
117381	MDA15P	15	M	metal	1.55	1.25	.69
12298	CDA15P	15	M	plastic	1.55	1.25	.75
116011	MDA15S	15	F	metal	1.55	1.25	.85
12319	CDA15S	15	F	plastic	1.69	1.35	.79
115983	MDB25P	25	M	metal	1.55	1.25	.99
12335	CDB25P	25	M	plastic	1.75	1.49	1.09
115975	MDB25S	25	F	metal	1.55	1.25	.99
12431	CDB25S	25	F	plastic	1.69	1.49	1.09
115991	MDC37P	37	M	metal	2.39	2.15	1.55
12466	CDC37P	37	M	plastic	3.09	2.79	2.19
116003	MDC37S	37	F	metal	2.39	2.19	1.69
12482	CDC37S	37	F	plastic	3.09	2.79	2.19

Solder-Cup Connectors



15114 Front



15114 Back

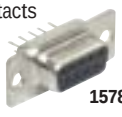
- Compatible with 24 AWG communications and 22 AWG solid cable, pg 88

* High Density

Part No.	Contacts	Gender	Shell	1	10	100	1000
15747	9	M	metal	$.56	$.44	$.36	$.24
15771	9	F	metal	.59	.49	.44	.31
15077	15HD*	M	metal	.69	.56	.44	.27
164822	15HD*	F	metal	.73	.59	.49	.31
15034	15	M	metal	.55	.44	.36	.24
15051	15	F	metal	.59	.49	.39	.24
15114	25	M	metal	.89	.79	.72	.65
15157	25	F	metal	.79	.71	.64	.58
203799	26*	M	metal	.65	.58	.52	.48
203781	26*	F	metal	.65	.58	.52	.48
15472	37	M	metal	.99	.79	.69	.39
15499	37	F	metal	1.19	.93	.74	.43
15675	50	M	metal	1.35	1.15	.99	.85
15691	50	F	metal	1.55	1.09	.89	.73

Straight PC Mount Connectors

- Non-removable contacts
- 125 Vrms
- Current rating: 5 amps
- Operating temp.: -65°F to +250°F



15780



15122

* High Density

Part No.	Mfr. Cross Ref. No.	Cont.	Gender	Shell	1	10	100
111691	DB9PPCB	9	M	metal	$.49	$.39	$.27
15780	DB9SPCB	9	F	metal	.49	.39	.27
174836	HDDB15PPCB*	15	M	metal	.24	.22	.19
176760	DA15PPCB	15	M	metal	.49	.39	.27
176751	DA15SPCB	15	F	metal	.49	.44	.39
15122	DB25PPCB	25	M	metal	.59	.49	.35
15165	DB25SPCB	25	F	metal	.74	.55	.31
180021	DC37SPCB	37	F	metal	.85	.69	.55

Crimp-Type Connectors and Pins

- Connectors: metal shell; removable male/female crimp pins
- Male/female pins: gold plated contact; tinned crimp tail
- Insertion/extraction tool: exchangeable tips
- Use 99442, pg 121 to crimp P/Ns 43377, 43369



180890



38771



43369



19094

* High Density

✳**Prepackaged: order in increments of 10, 100 or 1000**

Part No.	Description	1	10	100	1000
73189	DB9 male housing ✳	$.49	$.39	$.31	$.19
73197	DB9 female housing	.49	.39	.31	.19
73200	DA15 male housing	.55	.49	.44	.39
73218	DA15 female housing	.65	.59	.53	.47
180881	HDDB15 male housing*	1.09	.85	.69	.55
180890	HDDB15 female housing*	.89	.79	.72	.65
38789	DB25 male housing	.56	.44	.36	.21
38771	DB25 female housing	.55	.44	.31	.21
43377	Male crimp pins ✳	.07	.06	.05	
43369	Female crimp pins ✳	.07	.06	.05	
185421	Male crimp pins (for 180881) ✳	.055	.045	.04	
185412	Female crimp pins (for 180890) ✳	.055	.045	.04	
19094	Insertion/extraction tool for above pins (HT101)	2.95	2.49	2.15	2.15

4-40 Mounting Screw Hardware for D-Subminiature Connectors

4-40 x .187" Jack Screws and Hex Nuts



108986



102795



125014

✳**Prepackaged: order in increments of 10, 100 or 1000**

Part No.	Description	1	10	100	1000
169931	.275"L jack screw ✳	$.15	$.13	$.11	
172603	.315"L jack screw ✳	.16	.13	.11	
102816	.435"L jack screw	.49	.46	.41	.37
108986	.515"L jack screw	.49	.46	.41	.37
175636	.187"L hex nut ✳	.15	.13	.12	
102795	.240"L hex nut ✳	.21	.15	.10	
196293	.252"L hex nut ✳	.21	.15	.09	
125014	4-40 x 1.65"L plastic beige thumbscrew	.39	.33	.27	.22

4-40 Screw Sets



102808 16547

102808: 4-40 screw (.30"L) and retainer set
16547: 4-40 x .187" jack screw (.31"L thread), washer, lock washer and nut set

Part No.	Description	1	10	100	1000
102808	Screw/retainer set ✳	$.31	$.24	$.16	
16547	Screw/nut set ✳	.31	.24	.16	

D-Subminiature Connector Hoods



15085 Plastic



25620 Metallized

- Use with D-sub solder cup and housing style connectors

D Series: plastic hood with strain relief (gray)
MD Series: metal coated plastic hood w/ strain relief
MH Series: die-cast metal hood with strain relief

Includes: Hardware

Part No.	Mfr. Cross Ref. No.	Connector	1	10	100	1000
15721	DB9H	9-pin	$.45	$.39	$.36	$.32
25620	MDB9H	9-pin	.56	.44	.36	.31
147740	DB9MH	9-pin	1.45	1.29	1.15	.99
15018	DA15H	15-pin	.45	.40	.36	.32
25566	MDA15H	15-pin	.56	.44	.36	.31
15085	DB25H	25-pin	.39	.35	.31	.28
25603	MDB25H	25-pin	.56	.44	.36	.31
15106	DB25MH	25-pin	1.39	1.19	1.09	.89
15456	DC37H	37-pin	.55	.49	.39	.32
25611	MDC37H	37-pin	.69	.59	.52	.45
15659	DD50H	50-pin	.99	.85	.75	.65

25-Pin Dual Plastic Hood

Designed for custom applications requiring two D-sub connectors. Applications include custom jumper boxes and interconnects.





Shown assembled

Part No.	Description	1	10	100	500
34091	25-pin, plastic dual	$.89	$.79	$.69	$.49

Centronics Parallel Interface Connectors

Metal Body and Shell, Solder-Type Contacts



180072 180064 42382

- Solder eyelets accept 24 AWG wire, pg 88

Male cable plugs
- Complete with cable boot, shell and hardware

Female cable receptacles
- Can be used as panel mount
- Complete with spring latches and cable boot

Part No.	Mfr. Cross Ref. No.	Description	1	10	50
180072	57-30140	14-contact M	$1.56	$1.25	$.93
180064	56-30140	14-contact F	1.39	1.24	1.09
42382	57-30360	36-contact M	1.79	1.59	1.49

36-Pin Female Centronics Connector

Vertical PC Mounting



- Board mount
- Current rating: 1A
- Contact material: copper alloy
- Insulation resistance: 1000MΩ min. @ 500VDC
- Amphenol number: 57-20360-9 • Spring latches

Part No.	Description	1	10	100	1000
159708	36 contact fem.	$1.95	$1.59	$1.35	$1.10

PCB Right Angle Centronics Connectors



72151 72080

- Solder-type contacts • Space between rows: .164"
- Space between pins: 0.1" • Metal body • PC mount

Part No.	Description	1	10	100
72151	36-contact female	$2.95	$2.65	$2.39
72080	50-contact female	.95	.85	.75

IDC Centronics Connector



13848

- Contact material: gold plated phosphor bronze; plastic casing
- Current rating: 1 amp
- Temp. rating: -55°C to +105°C
- Use 73251 IDC crimping tool, right

Part No.	Mfr. Cross Ref. No.	Cont.	Type	1	10	100
13848	CEN36M	36	male	$1.75	$1.49	$1.09
13821	CEN36F	36	female	1.09	.99	.89

SCSI-II & SCSI-III Half-Pitch IDC Connectors



139352 139070

- Connectors are high-density D-sub

Part No.	Description	1	10	50
139352	50-pin male SCSI-II	$5.95	$5.49	$5.49
139061	68-pin male SCSI-III	4.95	4.49	3.95
139070	68-pin female SCSI-III	4.95	4.49	3.95

DIN Female Sockets

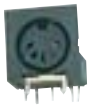


15851

- Metal body
- Panel mount with solder lugs

Part No.	Mfr. Cross Ref. No.	# of pins	1	10	100	500
15843	DINJ5	5	$.79	$.69	$.63	$.57
15851	DINJ6	6	.99	.79	.49	.42
15860	DINJ8	8	1.05	.85	.69	.61

Right Angle DIN Female Sockets



29399

- Set back: 0.5"
- PC mount contacts

140791/119474: Plastic/metal body
29399: Plastic body

Part No.	Mfr. Cross Ref. No.	# of pins	1	10	100	500
140791	MDR4S	4 (mini)	$.79	$.63	$.49	$.35
119474	MDR6S	6 (mini)	.69	.55	.41	.29
207722	MDS8100	8 (mini)	.99	.89	.79	.69
29399	RD5	5	.55	.49	.36	.31

DIN and Mini DIN Plugs and Receptacles



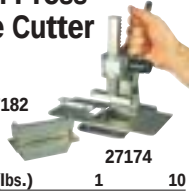
177236 15886

- Solder barrels including strain relief
- See page 88 for cable

Part No.	Pins	Type	1	10	100
142279	4	Mini plug	$.89	$.79	$.59
142261	6	Mini plug	.99	.85	.69
177244	6	Mini receptacle	.99	.85	.69
111878	8	Mini plug	.99	.89	.74
177236	8	Mini receptacle	1.09	.89	.75
15878	5	DIN plug	.55	.45	.39
180873	5	DIN receptacle	.55	.45	.39
15886	6	DIN plug	.59	.49	.43
15894	8	DIN plug	.69	.59	.49
180865	8	DIN receptacle	.39	.36	.33

PANAVISE IDC Bench Press and Cable Cutter

Designed for low to medium volume mass termination of various IDC connectors on flat ribbon cable.



27182 27174

Part No.	Prod. No.	Description	Wt. (lbs.)	1	10
27174	M505	Bench press	7.0	$179.95	$159.95

M505 Accessories

27182	M507	Cable cutter	0.9	$66.95	$61.95
27203	M510	Base plate	0.5	24.95	22.45

IDC Connector Crimping Tool



- Crimping distance: 27.5mm to 6mm (with attachment)
- For complete specifications see page 121

Part No.	Product No.	1	10	25
73251	HT214	$12.95	$11.49	$9.95

See the yellow highlighted items.
Special Jameco Values!
Details on page 5

Insulated Solderless Terminals

- Insulation thickness: .030"
- Funnel ramp entry • Temperature to 105°C
- Use with crimping tool P/N 72995, below
- **Prepackaged: please order in increments of 10, 100 or 1000**

Ring Solderless



Part No.	Color	Wire Gauge	Stud	10	100	1000
103683	Red	16-22	#6	$.11	$.07	$.05

Spade Solderless



Part No.	Color	Wire Gauge	Stud	10	100	1000
103587	Red	16-22	#6	$.11	$.07	$.05
103595	Blue	14-16	#8	.11	.07	.042

Disconnect Solderless



103667 109111

Part No.	Descrip.	Color	Gauge	Blade	10	100	1000
106921	Female	Red	16-22	.187"	$.12	$.07	$.05
103667	Female	Red	16-22	.25"	.12	.07	.05
109111	Female†	Red	16-22	.25"	.17	.11	.055

† 109111 includes hood

171-Pc. Solderless Terminal Kit

- Clear, hinged plastic box
- Use crimping tool P/N 72995, below



Qty.	Description	Wire Gauge	Blade Size	Qty.	Description	Wire Gauge	Blade Size
10	Male spade	16-22	1/4"	10	Ring term.	14-16	#10
10	Male spade	14-16	1/4"	5	Ring term.	10-12	#10
10	Fem. spade	16-22	1/4"	5	Ring term.	10-12	#14
10	Fem. spade	14-16	1/4"	10	Spade term.	16-22	#6
10	Ring term.	16-22	#6	10	Spade term.	16-22	#8
10	Ring term.	16-22	#8	10	Spade term.	14-16	#10
10	Ring term.	16-14	#10	10	Butt connec.	16-22	–
15	Ring term.	14-16	#6	10	Butt connec.	14-16	–
10	Ring term.	14-16	#8	5	Butt connec.	10-12	–

Part No.	Description	1	10	25
10989	Terminal kit	$8.95	$7.95	$7.25

Terminal Wire Crimping Tool

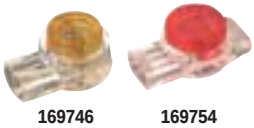


- Crimps solderless terminals: 18-22 AWG red, 14-16 AWG blue and 10-12 AWG yellow
- Size: 9.0"L x 2.0"W
- Weight: 0.8 lbs.

Part No.	Product No.	1	10	25
72995	HT303	$17.95	$15.95	$13.95

Telecom Splice Connectors

- Provides clean, solid, & rapid connection of wires to keep communication lines free of noise
- Available to handle a wide range of conductor sizes



169746 169754

169754: Y-Type

*** Prepackaged: please order in increments of 10, 100 or 1000**

Part No.	Color	Wire Gauge	No. of Conductors	1	10	100	1000
169746	Yellow	22–26	2	*	$.11	$.10	$.08
169754	Red	19–26	3Y	*	.17	.15	.13

Call for OEM pricing

Cable Clamps

- Tie mount and screw tab cable clamps
- Material: UL approved nylon 66, 94V-2
- ***Sold in increments of 10, 100 or 1000***

182941  182300 


182318


182334

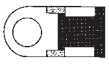

134754


173753

Part No.	Mfr. Cross Reference No.	Description	10	100	1000
182941	0505HC-101S	Tie mount cable .75"D; 4-way self adhesive	$.07	$.06	$.05
182300	0510HC-2	Tie mount cable .5"D; #6 screw	.17	.14	.11
182318	0519ATC-17	Tie mount cable .7"D ADJ; 2-way #6 screw	.59	.52	.46
182334	0520FC-1	Tie mount cable .1"D; self adhesive	.17	.14	.10
182342	0520FC-2	Tie mount cable .2"D; self adhesive	.19	.16	.14
173711	UC0	Cable clamp for 1/8" cable	.09	.038	.02
173729	UC0.5	Cable clamp for 3/16" cable	.035	.032	.019
173737	UC1	Cable clamp for 1/4" cable	.11	.04	.024
173745	UC1.5	Cable clamp for 5/16" cable	.019	.017	.015
134754	BO375	Cable clamp for 3/8" cable	.09	.035	.018
173753	UC3	Cable clamp for 1/2" cable	.09	.039	.025

Nylon Cable Tie Mounts

- Screw tab & cradle mount adhesive
- ***Sold in increments of 10, 100 or 1000***

70594   71407 71394 71386 

Part No.	Description	10	100	1000
70594	0.8"L x 0.4"W screw 4-way cable tie, used w/ 0.2"W max	$.15	$.09	$.05
171213	0.5" square adhesive 4-way cable tie, used w/ 0.1"W max	.15	.10	.06
71407	0.9" square adhesive 4-way cable tie, used w/ 0.1"W max	.17	.15	.11
71394	1.1" square adhesive 4-way cable tie, used w/ 0.2"W max	.19	.15	.11
71386	1.1" square adhesive 2-way cable tie, used w/ 0.4"W max	.25	.21	.19
173761	0.6"L x 0.4"W cable tie, saddle type	.15	.125	.075


173761

Cable Tie Assorted Kits

195207: 50 pcs. assorted colors; 25 pcs. 8" and 25 pcs. 11"
195830: 25 pcs. each 3¾", 4¾", and 7½" clear
195194: 75 pcs. assorted colors;
25 pcs. each 3¾" white, 4¾" red and 7½" yellow
195215: 100 pc. wire management assortment;
30 pcs. 3" cable ties, 20 pcs. 4" cable ties,
9 pcs. each 14-16AWG and 10-12AWG wire connectors,
10 pcs. 14-18AWG wire connectors; 6 pcs. 3/16",
8 pcs. each ¼" and ⅜" cable clamps


195207


195830


195194


195215

Part No.	Mfr. Cross Reference No.	Description	1	10	50
195207	VP-50-811C	Cable tie assortment	$2.49	$2.24	$1.95
195830	BP-75 CLEAR	Cable tie assortment	1.95	1.75	1.58
195194	BP-75	Cable tie assortment	2.49	2.24	1.95
195215	BP-100	Cable ties, clamps, and wire connectors assortment	2.49	2.24	1.95

Wire Connectors

SALE

- Material: UL approved nylon 66, 94V2
- Quick and secure method to splice control wires
- Strip wire before application • Twist on type
- ***Sold in increments of 10, 100 or 1000***

* Requires crimping tool (P/N 72995, below right)


182449


182511


140716

Part No.	Description	Material	Color	10	100	1000
182449	Crimp16-14 AWG (UL/CSA)*	Nylon 66, 94-2	Natural	$.06	$.055	$.05
182502	Wire-nut 16 AWG	PVC w/ metal spring	Gray	.035	.03	.025
182511	Wire-nut 16 AWG	PVC w/ metal spring	Blue	.05	.045	.04
182529	Wire-nut 16 AWG	PVC w/ metal spring	Orange	.035	.03	.025
182537	Wire-nut 14 AWG	PVC w/ metal spring	Yellow	.05	.045	.04
140724	Wire IDC 18-14 AWG	PE - metal inside	Blue	.05	.045	.04
140716	Wire IDC 22-18 AWG	PE - metal inside	Red	.15	.10	.075



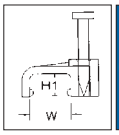
Opening an account is easy!!

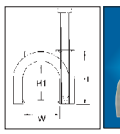
Corporate Customers

Call 1-800-831-4242 for details today

Nail-In Cable Clips

SALE


190810


190861

- Material: impact resistant PE • With nails inserted
- ***Sold in increments of 100 or 1000***

For telephone cords; white

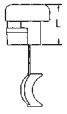
Part No.	Mfr. Cross Ref. No.	W x H x H1 (in.)	1	10
190810	NF0.7	.22 x .22 x .12	$.085	$.035
190828	NF1.2	.24 x .21 x .15	.08	.03
190836	NF1.6	.31 x .31 x .20	.08	.03
190844	NF2.0	.33 x .31 x .20	.02	.018
190852	NF2.8	.59 x .50 x .34	.08	.03

For general round cables; gray

Part No.	Mfr. Cross Ref. No.	W x H x H1 (in.)	1	10
190861	NCO.35N	.14 x .23 x .15	$.085	$.035
190879	NC0.5N	.20 x .30 x .21	.085	.035
190887	NC1N	.24 x .35 x .26	.085	.035
190895	NC2N	.31 x .45 x .34	.08	.03
190908	NC3N	.39 x .53 x .41	.08	.03

Round-Type Strain Relief Bushings

- Material: UL approved nylon 66, 94V-2
- Color: black
- Used extensively for protecting cords and to prolong cord life
- ***Sold in increments of 10***



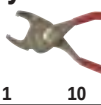

182369

Part No.	Cable Type	Lgth (in.)	10	100	1000
182351	SVI/SVT	.43	$.19	$.17	$.15
182369	SJ/SJT; 16 AWG	.58	.19	.11	.09
182377	SJC; 18 AWG	.58	.27	.24	.22

Bushing Assembly Tool

- For use with strain relief bushings, above





Part No.	Description	1	10	100
73470	Bushing tool	$31.95	$28.75	$25.85

Black Electrical PVC Tape (30')

SALE

- Cold and weather resistant
- UL approved • Length: 30'
- Size: 7 mil thick x .75"W x 30'L



Part No.	Description	1	10	100
150527	Electrical tape	$.52	$.47	$.43

Braided Nylon Lacing Tape

SALE

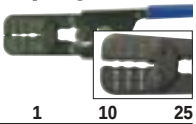
- Waxed finish • Braided
- Excellent knot retention
- Meets specification: MIL-T-43435B
- Size: .085"W x 500 yards long


174369

Part No.	Description	1	10
174369	Lacing tape (natural)	$16.99	$15.29
189798	Lacing tape (black)	15.39	13.79

Terminal Wire Crimping Tool

- Crimps solderless terminals: 18-22 AWG red, 14-16 AWG blue and 10-12 AWG yellow
- Size: 9.0"L x 2.0"W



Part No.	Mfr. Cross Ref. No.	1	10	25
72995	HT303	$17.95	$15.95	$13.95

Call for OEM pricing – we carry major manufacturers.

Heat Gun/Stripper

Dual-Setting



- Use with heat shrink material
- Works with spot-dry paint, plaster, spackle cure adhesives
- Will remove adhesive-applied tiles and linoleum without chipping
- Dual heat setting: 600°F/1100°F
- Thaw pipes, frozen locks and loosen rusted bolts
- UL listed • Weight: 1.8 lbs. • Size: 9.3"L x 7.0"W

Part No.	Description	1	10	25
76865	Heat gun	$39.95	$35.95	$31.95

Weller® 250-Watt, 3-Setting Industrial Heat Gun



- 750°F to 800°F hot air at nozzle; 3-position switch; hot-off-cool
- Designed for assembly and repair applications such as shrink tubing and vinyl, epoxy curing/drying/cooling
- Long-life heater and fan components
- 120VAC @ 60Hz • ESD safe
- 3-wire grounded plug; 6' cord
- Weight: 1.2 lbs.

Part No.	Product No.	Description	1	10
191943	6966C	Heat gun	$119.95	$107.95

WAHL® 1,200°F Portable Heat Gun

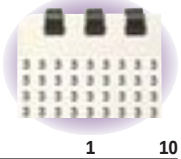


- Portable and flameless heat
- Temperatures up to 1,200°F (650°C)
- Typical applications: shrink tubing, activate adhesives and potting compounds, form plastics and laminates and preheat flux
- Each cartridge (disposable butane lighter) provides approximately 20 minutes of heat
- Includes disposable gas lighter
- Electronic ignition
- Size: 4.8"L x 0.9"W
- One-year warranty

ETL listed

Part No.	Description	1	10
150691	Portable flameless heat gun	$26.95	$24.25

Self Adhesive Wire Marker



- Stick to wires for permanent identification
- Cloth tape label numbered 0-9
- Used extensively for cable diameter after or before terminal attachment

Part No.	Product No.	1	10
182262	0215WMB-1	$9.95	$8.95

3M Tape Wire Markers



- For marking wires with numerical sequence
- Self adhesive tapes numbered 0-9
- Size: (tape) 96"L x 0.25"W

Part No.	Description	1	10
159231	Numerical tape dispenser	$30.95	$27.85

Heat Shrink Tubing



72063

- 2:1 uniform shrink ratio
- Color: black
- Temperature range: -45°C to +125°C
- Shrink temp.: 175°C
- **Length 39" ; sold as 1 increment**

PVC Heat Shrink Flat Film

Part No.	Flat	Unshrunk Cir. Dia.	Shrunk Cir. Dia.	1	10	100
70631	5/16"	1/4"	1/8"	$1.49	$1.34	$1.19
70623	1/2"	5/16"	3/16"	1.49	1.12	.78
70666	13/16"	9/16"	1/4"	1.49	1.34	1.19

Polyolefin Heat Shrink Tubing

- Dielectric strength: 1300V • Flexible
- Shrink temperature: 121°C • Flame retardant

Part No.	Before	After (Dia.)	1	10	100
71327	1/16"	1/32"	$.59	$.51	$.46
71870	3/32"	3/64"	.59	.49	.44
71280	1/8"	1/16"	.69	.59	.54
72063	1/4"	1/8"	.99	.81	.72

PVC Heat Shrink Tubing



182748



182772

- 2:1 uniform shrink ratio
- Color: black
- Shrink temp: 125°C
- Sold in 10' and 100' increments
- UL/CSA approved

Part No.	Dia. before (mm)	10	100
184721	.12" (3)	$1.19	$10.50
182730	.16" (4)	1.39	12.50
182748	.20" (5)	1.45	13.00
182756	.24" (6)	1.49	13.50
182764	.31" (8)	1.79	16.00
182772	.43" (11)	2.49	22.50
182781	.59" (15)	3.00	26.00

Cable Sleeve

Clean Cut Expandable Sleeving



162157

- Flame resistant
- Applications: protecting wires, cables and hoses
- Operating temp.: -70°C to 125°C
- ***Sold in spools of 25'***

Part No.	Product No.	Actual/Expanded Dia.	1	10
162157	CCPT2X	.250"/.440"	$16.95	$15.95
162165	CCPT3X	.500"/.750"	17.95	14.49

Nylon Cable ID Ties and Tabs



71061



135175

71061: Clear ID tab (0.98" x 0.31")
182692: White ID tab (18 lb. tensile strength)
135175: Nylon cable tie ID marker

- ***Sold in increments of 10, 100 or 1000***

Part No.	Size	10	100	1000
71061	4.0"L x 0.1"W	$.10	$.08	$.072
182692	8.0"L x .10"W	.18	.125	.10
135175	2.0"L x 0.8"W x .02"T	.20	.135	.10

Cable Markers

SALE



- UL approved natural nylon
- ***10 piece minimum***

Part No.	Size	10	100	1000
182705	1.5"L x .75"W	$.12	$.11	$.10
182713	2.5"L x 1.76"W	.09	.08	.07

Nylon Cable Ties

Standard

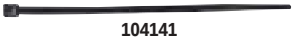


70560

- Cable ties made from UL approved Nylon 66
- Temperature range: -40°C to +85°C
- Flammability rating: UL 94V-2
- Color: clear (except P/N 182676* – black)
- ***Sold in increments of 100s or 1000s***

Part No.	Tensile Strength (lbs.)	Dimensions (L" x W")	100	1000
70560	18	3.1 x 0.10	$.025	$.015
126543	18	4.0 x 0.10	.02	.014
182676*	18	4.75 x 0.13	.035	.025
182650	18	5.5 x 0.13	.035	.025
139150	18	8.0 x 0.10	.04	.025
182668	18	8.0 x 0.13	.075	.05
182684	18	8.0 x 0.18	.039	.035
70906	40	5.8 x 0.10	.035	.029
190756	40	10.0 x 0.14	.089	.065
190772	40	11.0 x 0.19	.11	.075
190764	40	13.0 x 0.14	.10	.075

Weather Resistant



104141

- Contain Carbonate A for greater resistance to ultra violet rays in outdoor use
- Color: black
- ***Sold in increments of 100s or 1000s***

UV Resistant

Part No.	Tensile Strength (lbs.)	Dimensions (L" x W")	100	1000
139125	18	3.0 x 0.90	$.03	$.019
104141	18	4.0 x 0.10	.031	.019
104133	40	5.8 x 0.10	.038	.025
190781	40	8.0 x 0.13	.063	.05
190799	40	10.0 x 0.14	.094	.065
190801	40	13.0 x 0.14	.113	.088
139141	50	4.8 x 0.18	.038	.03

Cable Tie Assortments



145701

145701 (closeup)

- Tensile strength: 18-50 lbs.

145701:
1000 pcs. (4"L); 10 colors

150412:
500 pcs. (4"L); 300 pcs. (8"L); 50 pcs. (11"L), 5 colors

Part No.	Weight (lbs.)	1	10	50
145701	0.7	$9.49	$8.49	$7.39
150412	1.7	13.95	11.49	9.95

AC Cord Cable Tie



- Reusable • Length: 6"
- Color: black
- **100 piece minimum**

Part No.	Description	100	1000
183185	Cable tie	$.09	$.08

Cable Tie Tools



182297

SALE



182271

- 2.5 - 5mm width (of cable) • Tension adjustable
- Twist to cut surplus tie end • Spring return action

Part No.	Description	1	10	100
182297	Cable tie tool (plastic)	$19.95	$17.95	$15.95
182271	Cable tie tool (metal)	39.99	35.99	32.49

Part Number Color Code: New Sale Refurbished Closeout

Call for OEM pricing

Gray Flat Ribbon Cable – 28 AWG



- Single edge red stripe for pin 1 orientation
- Center spacing: 0.05" • 28 AWG (7 x 36)
- Insulation: polyvinyl chloride (PVC) • Voltage rating: 300V
- Temperature rating: -20°C to +80°C • Stranded copper wire

103481

- **Prepackaged and priced in increments of 10', 25', 100' or 500'**

Part No.	Mfr. Cross Ref. No.	Conductors	10 ft.	25 ft.	100 ft.	500 ft.
135538	171-10	10	**$1.49**	**$3.20**	**$11.50**	**$47.50**
37671	171-16	16	**2.20**	**5.00**	**16.00**	**70.00**
37719	171-20	20	**1.95**	**4.50**	**16.00**	**65.00**
37760	171-25	25	**3.90**	**8.75**	**25.00**	**110.00**
37807	171-26	26	**3.49**	**8.00**	**25.00**	**120.00**
37840	171-34	34	**4.25**	**9.25**	**32.00**	**120.00**
37911	171-37	37	**5.90**	**13.25**	**48.00**	**215.00**
37920	171-40	40	**6.20**	**14.75**	**40.00**	**180.00**
37954	171-50	50	**6.75**	**14.50**	**49.00**	**210.00**
103481	171-60	60	**8.95**	**19.75**	**65.00**	**285.00**

Multicolor Flat Ribbon Cable – 28 AWG



- Standard 10-color repeat sequence
- Center spacing: 0.05" • Voltage rating: 300V
- Temperature rating: -20°C to +80°C
- Stranded copper wire • 28 AWG (7 x 36)

105718

- **Prepackaged and priced in increments of 10', 25', 100' or 500'**

Part No.	Mfr. Cross Ref. No.	Conductors	10 ft.	25 ft.	100 ft.	500 ft.
112547	28RC10	10	**$1.95**	**$4.50**	**$17.50**	**$70.00**
105671	28RC16	16	**3.25**	**7.25**	**24.00**	**100.00**
105689	28RC20	20	**3.95**	**9.00**	**30.00**	**125.00**
105697	28RC25	25	**5.90**	**13.00**	**44.00**	**180.00**
105700	28RC34	34	**6.50**	**13.00**	**43.00**	**175.00**
105726	28RC40	40	**7.90**	**17.75**	**64.00**	**285.00**
105718	28RC50	50	**9.95**	**23.00**	**79.00**	**345.00**

Solid Hook-Up Wire – 22 AWG



- Temperature range: -55°C to +105°C
- Passes UL VW-1 flame test • MIL-W-16878D type B
- Weight: 100' (0.3 lbs.); 1000' (3.8 lbs.)
- For use with breadboards such as the JE20 series, pg 90

Part No.	Mfr. Cross Ref. No.	Color	100 ft.	Part No.	Mfr. Cross Ref. No.	Color	1000 ft.
36767	122BE/C	Blue	**$4.95**	**36775**	122BE/K	Blue	**$29.95**
36791	122BK/C	Black	**4.25**	**36804**	122BK/K	Black	**29.95**
36821	122G/C	Green	**4.25**	**36839**	122G/K	Green	**29.95**
36855	122R/C	Red	**4.25**	**36863**	122R/K	Red	**29.95**
36880	122W/C	White	**4.25**	**36898**	122W/K	White	**34.49**
36919	122Y/C	Yellow	**4.25**	**36927**	122Y/K	Yellow	**29.95**

Modular Telephone Cable – 28 AWG

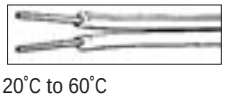


- Color coded conductors • Flat modular cable
- PVC jacket • Gray • 7 x 43 stranded

103430

Part No.	Mfr. Cross Ref. No.	Conductors	100 ft.	1000 ft.	10000 ft.
103430	MTC4	4	**$3.30**	**$30.00**	**$250.00**
103448	MTC6	6	**7.00**	**50.00**	**430.00**
103450	MTC8	8	**10.00**	**62.00**	**450.00**

300V 2-Conductor Stranded Power/Speaker Cable – 24 AWG



- Operating voltage: 300V • Temperature rating: 20˚C to 60˚C
- Stranded copper wire (7 x 32) • Black wire with white polarity stripe

Part No.	Mfr. Cross Ref. No.	Color	Wt. (lbs.)	100 ft.	Part No.	Mfr. Cross Ref. No.	Color	Wt. (lbs.)	1000 ft.
100280	224BK/C	Black	0.8	**$4.95**	**100298**	224BK/K	Black	7.8	**$31.95**

30 AWG Tri-Color Wire/Dispenser



Includes: Three 50' spools of 30 AWG wire (blue, white and red) and push button cutter

Part No.	Mfr. Cross Ref. No.	1	10
117807	WD-30-TRI	**$24.95**	**$22.49**

Modular Network Cable



118130

- 100MHz • 8C • 4 twisted pairs • UTP
- Insulation: polyethylene • Nom. OD.: 189"
- Nom. impedance: 100Ω

Solid: uses modular plug P/N 119343, pg 131
Stranded: uses modular plug P/N 79281, pg 131

See pages 129 - 131 for more Modular Cable and Connectors

- **Prepackaged and priced in increments of 25' or 100'**

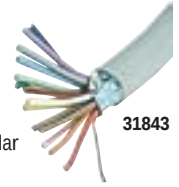
24 AWG UTP Category 5 – 100MHz

Part No.	Description	25 ft.	100 ft.	1000 ft.
118113	Solid (gray)	**$4.00**	**$13.70**	**$110.00**
118130	Stranded (gray) (7/32 AWG)	**5.50**	**18.00**	**150.00**
201638	Stranded (blue) (7/32 AWG)	**5.50**	**15.00**	**140.00**

24AWG UTP Category 5 Enhanced – 350MHz

Part No.	Description	25 ft.	100 ft.	1000 ft.
176225	Solid (gray)	**$5.00**	**$17.00**	**$100.00**
176233	Stranded (gray)	**6.00**	**21.00**	**180.00**
201582	Stranded (blue)	**6.00**	**18.00**	**160.00**

Multiconductor Shielded Computer Communication Cable – 24 AWG



31843

- Stranded copper wire, multi-colored insulation
- Insulated with polyvinyl chloride (PVC)
- Voltage rating: 300V • Color: gray • Drain wire
- 24 AWG (7 x 32 AWG) • Shielded 100% w/ aluminum mylar

- **Prepackaged and priced in increments of 25' or 100'**

Part No.	Mfr. Cross Ref. No.	Conductors	Diameter	25 ft.	100 ft.	1000 ft.
31860	SC4	4	0.20"	**$4.75**	**$17.00**	**$140.00**
31878	SC9	9	0.23"	**9.75**	**31.00**	**230.00**
31843	SC15	15	0.28"	**13.00**	**47.00**	**360.00**
31851	SC25	25	0.37"	**17.25**	**61.00**	**380.00**

Stranded Hook-Up Wire – 18/20/22 AWG

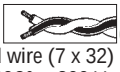


300 Volts

- 80°C • PVC insulation • CSA: TR-64 • UL style: 1007
- Temperature range: -40°C to +80°C • **Sold in 100' rolls**

Part No.	Mfr. Cross Ref. No.	AWG	Strands (No. x AWG)	Color	Wt. (lbs.)	1	10
126084	223SBK/C	22	7 x 30	Black	0.4	**$2.95**	**$2.49**
126033	223SR/C	22	7 x 30	Red	0.4	**2.95**	**2.49**
126076	223SW/C	22	7 x 30	White	0.4	**2.95**	**2.49**
125840	203SBK/C	20	10 x 30	Black	0.6	**4.19**	**3.55**
125794	203SR/C	20	10 x 30	Red	0.5	**4.19**	**3.55**
125831	203SW/C	20	10 x 30	White	0.5	**4.35**	**3.29**
125786	183SBK/C	18	16 x 30	Black	0.8	**4.75**	**4.28**
125735	183SR/C	18	16 x 30	Red	0.8	**4.75**	**4.28**
125751	183SW/C	18	16 x 30	White	0.8	**3.95**	**3.25**

Twisted Pair Cable – 24 AWG





- PVC insulation • Use for hook up wire • Stranded tinned wire (7 x 32)
- Reduced EMI • Wt.: 100' (0.5 lbs.); 1000' (4.7 lbs.) • 80C° • 300 V

Part No.	Mfr. Cross Ref. No.	Color	100 ft.	Part No.	Mfr. Cross Ref. No.	Color	1000 ft.
105911	224GW/C	Green/white	**$4.95**	**105806**	224GW/K	Green/white	**$39.95**
173147	224RW/C	Red/white	**4.95**	**173155**	224RW/K	Red/white	**39.95**
173163	224BW/C	Black/white	**4.95**	**173171**	224BW/K	Black/white	**39.95**

Kynar™ Wire Wrap Wire – 30 AWG



22541

- Assorted color coded insulation • Used for prototyping
- Color coded Kynar™ (Polyvindene Fluoride) insulation
- Silver plated copper (solid conductor) • UL 1423
- Temperature: -40°C to +125°C • See pg 83 for sockets
- Wire wrap tools, pg 124 • Passes UL VW-1 flame test

Part No.	Color	Wt. (lbs.)	100 ft.	Part No.	Color	Wt. (lbs.)	1000 ft.
22541	Blue	0.1	**$3.95**	**22550**	Blue	0.6	**$29.95**
22576	Black	0.1	**4.95**	**22584**	Black	0.6	**29.95**
22630	Red	0.1	**3.95**	**22648**	Red	0.6	**29.95**
22664	White	0.1	**3.95**	**22672**	White	0.6	**29.95**
22605	Green	0.1	**4.95**	**22613**	Green	0.6	**29.95**
22699	Yellow	0.1	**3.95**	**22701**	Yellow	0.6	**29.95**

CAIG Chemical Products


195071


195151


195119



195186


194976


195004


195021


195160


195178


195080

*** Shipped via UPS ground to continental U.S. only.**

CaiKleen™ TRP Cleaner/Defluxer

- Excellent label remover
- Citrus based

Part No.	Description	Fl. (oz.)	1	12
195071*	CaiKleen aero. spray	7.0	$5.69	$4.99

CaiKleen™ RBR Rubber Cleaner

- Rubber cleaner and rejuvenator
- Concentrate
- Needle dispenser

Part No.	Description	Fl. (oz.)	1	12
195151	CaiKleen RBR liquid	0.8	$7.29	$6.49

CaiKleen™ A/V VCR Cleaner

- VTR/VCR precision cleaner
- HCFC blend

Part No.	Description	Fl. (oz.)	1	12
195119	CaiKleen liquid	4.0	$7.19	$6.49

CircuitWriter™

- Conductive ink
- Silver based

Part No.	Description	Fl. (oz.)	1	12
195160	CircuitWriter pen	0.2	$13.95	$12.55

CircuitSealer™

- Conformal coating
- Acrylic based

Part No.	Description	Fl. (oz.)	1	12
195178	CircuitSealer pen	0.2	$11.95	$10.75

CaiKote™ 44 Kit

- Conductive carbon coating for button contacts and membranes
- Carbon based

Part No.	Description	Wt. (oz.)	1	12
195186	CaiKote 44 kit	0.2	$24.95	$22.45

ProGold™ Conditioner

- Conditioner, preservative and lubricant for plated electrical connections (-34˚C to 200˚C)

194950: 5% solution
194976: 100% solution

- Brush applicator

Part No.	Description	Fl. (oz.)	1	12
194950*	ProGold aero. spray	6.0	$17.95	$16.15
194976	ProGold liquid	0.25	19.95	17.95

DeoxIT™ Deoxidizer

- Deoxidizer, cleaner and preservative for metal electrical connections

195004: 5% solution aerosol spray
195021: 100% solution

- Brush applicator

Part No.	Description	Fl. (oz.)	1	12
195004	DeoxIT D5 spray	6.0	$10.95	$9.86
195021	DeoxIT liquid	0.25	9.95	8.95

Photo Etch™ Printed Circuit Kit

Generate your own 1:1 artwork. Then use the patented Fast Neg film process to make a photo negative and sensitize and expose a blank copper board. Finish by developing and etching. No camera or darkroom is required. • Wt.: 4.6 lbs.



Part No.	Prod. No.	Description	1	10
16731	12-750*	Printed circuit kit	$39.95	$36.95

*Shipped via UPS ground to continental U.S. only

Photo Etch Accessories

DATAK


16758


16723


70261

Part No.	Prod. No.	Description	Wt. (lbs.)	1	10
16758	ER8*	Negative-acting resist developer 16 oz.	1.2	$6.95	$5.95
16723	ER18	TINNIT™ 1 pint	0.2	6.95	5.95
70261	ER71*	Negative-acting photo resist liquid 4 oz.	0.5	8.95	7.95

*Shipped via UPS ground to continental U.S. only

Modern Electronics Soldering Techniques Book

Thoroughly discusses areas of correct handling and identification of components. Also covered is the art of reading, converting schematics & improving your knowledge of test concepts.



Part No.	Description	1	10
185498	Modern Electronics	$19.95	$17.95

30-Day Money-Back Guarantee

If you're not satisfied we'll take it back!

Details on page 181

TECHSPRAY Workshop Chemical Products

- Safe on plastics
- EPA SNAP approved, no CFCs or HCFCs
- **Shipped via UPS ground to continental U.S. only.**


139900


139934


118050


118041


118033


195240


195282





Envi•Ro•Tech™ Duster

- Acc-u-sol trigger
- 10 oz. aerosol can

Part No.	Description	Wt. (lbs.)	1	12
139900	Dusting gas w/ trigger	0.8	$6.95	$6.25

Envi•Ro•Tech™ Freezer

Rapidly evaporating liquid that can chill to -62˚F.

- 10 oz. aerosol can

Part No.	Description	Wt. (lbs.)	1	12
139934	Envi•Ro•Tech freezer	0.8	$7.95	$6.95

ECOLINE Cleaner Degreaser

- Rapid evaporation
- 10 oz. aerosol can

Part No.	Description	Wt. (lbs.)	1	12
118050	Cleaner degreaser	0.8	$9.95	$8.95

ECOLINE Flux Remover

- Dissolves type R, RMA, RA, SA and most no-clean fluxes
- 10 oz. aerosol can

Part No.	Description	Wt. (lbs.)	1	12
118041	Flux remover	0.8	$9.95	$8.95

ECOLINE Contact Cleaner

- Ideal for switches, relays, contact pads and other places of electrical connections
- 10 oz. aerosol can
- Solvent will not damage switch housings

Part No.	Description	Wt. (lbs.)	1	12
118033	Contact cleaner	0.9	$8.95	$7.95

VORTEX 360 Duster

- Vortex 360˚ invertible valve
- 10 oz. aerosol

Part No.	Description	Wt. (lbs.)	1	12
195240	Dusting gas	0.8	$9.95	$8.95

EQUINOX Gold Cleaner Degreaser

- Water based, safe on plastics and most metals
- For heavy industrial use
- 1 quart trigger sprayer

Part No.	Description	Wt. (lbs.)	1	12
195282	Cleaner/degreaser	0.5	$5.29	$4.79

These long-lasting solderless breadboards feature screen-printed color coordinates suitable for many types of digital and analog prototyping and circuit design. Larger models feature a heavy-duty aluminum backing with binding posts. Use Jameco's AC/DC breadboard power supply, P/N 77681 (pg 91).

- Accepts most electronic components, including integrated circuits and transistors for digital and/or analog circuitry • 0.1" hole spacing
- Pins are identified by numbered rows and columns
- Ideal for high frequency and low noise circuits
- One-year warranty * WBU5 and JE series do not interconnect


20757


20773


20790


20811

Attention Educators! Buy jumper wire (pg 91) in bulk and SAVE! **(see Hook-up Wire on page 88)**

WBU5 Series Key Features:

- Horizontal assembly corresponds to the operation flow design of the PC boards for handy operation
- Round hole design makes the electric connection better
- Formed with V-shaped cross-sectional groove, which allows DIP IC pins to be inserted across two parts and to increase the rate of utilization due to small pitch
- Dovetail protrusions and recesses designed to connect two adjacent parts tightly together

JE Series Key Features:

- Use to breadboard and debug circuit designs
- Low static, plastic body – CMOS safe
- Nickel-plated clips designed to withstand up to 5,000 insertion cycles
- Breadboard strips connect together to form larger working areas
- Components are easily interconnected using 20-28 AWG wire (P/N 19289 & 20079, pg 91)
- Some models feature heavy-duty aluminum backings (JE24, JE27, WBU504)


20600


94457

20669


20722


136901

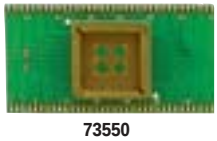

77825

Part Number	Mfr. Cross Ref. No.*	Terminal Strips	Bus Strips	Contact Points	Binding Posts	Breadboard Size L x W (In.)	Baseplate Size L x W (In.)	Weight (lbs.)	Pricing 1	10	50	100
94457	JE19	0	1	100	0	6.5 x 0.4	—	0.04	**$2.95**	**$2.65**	**$2.39**	**$2.15**
20600	JE21	1	2	400	0	3.3 x 2.1	—	0.13	**4.95**	**4.49**	**3.95**	**3.49**
20669	JE22	1	0	630	0	6.5 x 1.4	—	0.20	**5.49**	**4.95**	**4.49**	**3.95**
194263	JE33	1	1	630	0	6.5 x 1.8	—	0.20	**5.99**	**5.49**	**4.99**	**4.49**
194280	JE35	1	1	640	0	6.9 x 2.1	—	0.23	**8.95**	**7.95**	**7.25**	**6.55**
194298	JE37	1	2	640	0	6.9 x 2.4	—	0.25	**9.95**	**8.95**	**7.95**	**7.25**
194255	JE38	1	2	800	4	2.9 x 5.6	4.9 x 6.3	0.50	**16.95**	**15.25**	**13.75**	**12.35**
20722	JE23	1	2	830	0	6.5 x 4.0	6.5 x 2.1	0.30	**8.95**	**7.95**	**7.25**	**6.55**
194271	JE34	2	3	1,260	3	6.5 x 4.0	8.5 x 4.7	0.73	**17.95**	**16.15**	**14.55**	**12.95**
20757	JE24	2	1	1,360	2	6.5 x 3.1	8.5 x 4.0	0.60	**12.95**	**11.95**	**10.95**	**9.95**
136901	WBU504*	2	3	1,600	4	5.5 x 5.5	7.4 x 6.3	0.90	**22.95**	**20.95**	**18.95**	**16.49**
20773	JE25	2	4	1,660	3	6.5 x 4.3	8.5 x 5.1	0.80	**18.95**	**16.95**	**14.95**	**13.95**
20790	JE26	3	5	2,390	4	6.9 x 5.8	9.1 x 6.9	1.10	**23.95**	**21.95**	**19.95**	**17.95**
20811	JE27	4	7	3,220	4	7.3 x 7.5	9.5 x 8.3	1.40	**31.95**	**29.95**	**27.95**	**25.95**

Part No.	Description	1	10	25
77825	Breadboard pin to breadboard pin test leads (20 pk), 4 each color-coded (red, yellow, blue, black, white), 20 AWG wire, 5.9"L (15cm)	**$11.95**	**$10.95**	**$9.95**

PLCC Prototype Adapters

PLCC socket mounted on a circuit board for easy wire wrap or design prototyping. Solder masked PCB with 0.25" long leads.

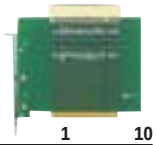

73550

- PCB construction
- Silkscreen numbers identify pin numbers in groups of 5 and 10 • Gold-plated round pins
- Tin-plated PLCC connector
- PLCC socket identifies pin 1 and orientation key
- PLCC socket slotted for PLCC chip remover

Part No.	Pins	Size (L x W)	1	10	100
73541	44	2.3" x 1.6"	**$10.95**	**$9.95**	**$8.95**
73550	68	3.4" x 1.6"	**15.95**	**14.49**	**12.95**
73568	84	4.3" x 1.9"	**21.95**	**19.95**	**17.95**

PCI-Bus Extender Card

- PCI Bus
- Extends life of motherboard connectors
- Gold-plated fingers for long life
- Size: 5.9"L x 5.4"W



Part No.	Description	1	10
141381	PCI-bus extender card	**$69.95**	**$62.95**

BestProto AT/ISA Prototyping Board

- Can accommodate a PGA package with a 31 x 31mm footprint
- Twenty-one 1206 surface-mount bypass capacitor sites and 142 unconnected sites
- Size: 8.2"L x 4.2"W

Low noise power and ground planes

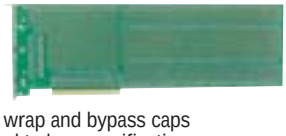


Includes: Signal definition chart

Part No.	Description	1	10	25
136469	AT/ISA protoboard	**$29.95**	**$26.95**	**$23.95**

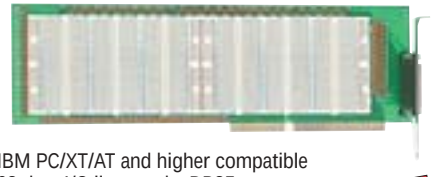
PCI-Bus Prototype Board

- All plated through holes
- 0.1" hole spacing
- 50 Mil power and ground grids
- Provision for wire wrap and bypass caps
- Impedance matched to bus specifications
- Easy access to every signal on the bus
- Size: 12.4"L x 5.0"W • Weight: 0.6 lbs.



Part No.	Description	1	10
141372	PCI prototype bus board ..	**$69.95**	**$62.95**

8/16-Bit PC/XT/AT Solderless Plug-In Breadboard



- IBM PC/XT/AT and higher compatible
- 62 data I/O lines and a DB25 female connector for interfacing to peripherals
- Twenty-four 14-pin IC capacity
- Clearly labeled bus lines • 2,352 contact points
- Durable construction • One-year warranty
- Size: 13.8"L x 5.0"W • Weight: 1.0 lb.

Easy PC/XT/AT Prototyping!

Part No.	Description	1	10	25
81672	8/16-bit breadboard	**$59.95**	**$53.95**	**$47.95**

Over 99% of our products are in stock!

We'll Send It Today!

Just place your order by 6PM EST for same business day shipment

Wire Jumper Kit (350 pcs.)



- 25 each of lengths 0.1" through 5.0" (14 sizes)
- 350 assorted lengths in 13 colors
- Pre-stripped/preformed 22 AWG solid wire jumpers

19289

19289: 350-piece wire jumper kit
- Handy, durable, clear plastic case

20079: 350-piece refill for 19289
- Case not included

SALE

Part No.	Description	1	10	50	100
19289	Wire jumper kit	$11.95	$10.79	$9.79	$8.79
20079	Refill for 19289	9.99	8.99	7.99	7.25

Reinforced Jumper Wires

- 24 AWG-300 volts
- Reinforced pin ends for durability
- 10 pack assortment: 2 each yellow, white, red, black & blue



126341

Part Number	Mfr. Cross Ref. No.	Length (mm / inch)	1	10	100
126359	JW50	50 / 1.97	$3.95	$3.49	$2.95
126341	JW100	100 / 3.94	4.09	3.65	3.09
126324	JW200	200 / 7.87	4.25	3.75	3.25

SMD Surfboards®



Mini Breadboards for Surface Mount Devices

6000/6100 Series for Discrete Devices
- Universal large foil pattern areas accept a wide range of device footprints or can be modified to accept new footprints
- 0.1" pin spacing
- Height: 0.5"



207407

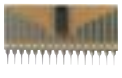
Part No.	Product No.	Pins	Width	1	10
207423	6103	3	0.3"	$1.25	$1.09
207407	6008	8	0.8"	2.15	1.89
207431	6109	9	0.9"	2.25	1.99
207415	6010	10	1.0"	2.65	2.29

9000 Series for ICs
- Adapt SMD to thru-hole
- Size: 1.20"W x 0.65"H

207378/207394: 0.1" pin spacing



207360



207394

Part No.	Product No.	1	10
207360	9081 (For 8-pin SOIC)	$1.35	$1.15
207378	9082 (For 8-pin SOIC)	3.55	3.10
207386	9161 (For 14/16-pin SOIC)	1.75	1.50
207394	9163 (For 14/16-pin SOIC)	5.45	4.79

Application Specific Adapters

33000 series SURFBOARDS® convert SMD component footprints to SIP format. Compatible with conventional and solderless breadboards & sockets (.100" center pins).



207589

NEW

Accepted Devices:
207589: SOT-23-5, SC59-5
207597: SOT-23-6, SOT-23-L, SC-59-6, TSOP-6

Part No.	Product No.	Pins	1	10
207589	33205	5	$1.55	$1.39
207597	33206	6	1.75	1.54

Digital/Analog Design Labs

- **Two 7-Segment Displays (digit height: 0.3")**
- One-year warranty

Solderless Breadboard
- Interconnected nickel-plated tie points, fitting all DIP sizes and all components with AWG #22-30 (0.3-0.8mm) solid leads

DC Power Supplies
- DC supplies equipped with short circuit protection
- Variable DC power: 0 to +15V & 0 to -15V @ 0.5A

Function Generator (5 ranges)
- Frequency range: 1Hz–10Hz, 10Hz–100Hz, 100Hz–1kHz, 1kHz–10kHz, 10kHz–100kHz
- Sine wave output: 0–8 Vp-p variable • Triangle wave output: 6Vp-p fixed • Square wave output: ±5V fixed

Our most popular digital lab!



75838

International 115/220VAC Switchable



201890

Part No.	Tie Points	Fixed Power Supply	Pulse Generator	Frequency Counter	Multimeter	Includes
75838	1580	±5VDC @ 1.0A	No	No	DCV (Digital)	Power cord, manual
201890	2960	±5VDC @ 0.5A	Yes (1Hz to 1MHz switchable)	Yes	ACV, DCV, DCmA, resistance (analog)	Power cord, enclosed case, test lead, jumper wire kit, DB25 serial adapter, manual

Part No.	Description	Size (W" x D" x H")	Weight (lbs.)	1	10	25
75838	Digital lab	10.6 x 13.3 x 5.0	8.1	$279.95	$249.95	$226.95
201890	Digital/analog lab	13.9 x 12.8 x 4.9 (back panel)	11.8	429.95	389.95	349.95

Digital-Analog Design Lab

Solderless Breadboard
- 2712 interconnected nickel-plated tie points, fitting all DIP sizes and all components with AWG #22-30 (0.3-0.8mm) solid leads

DC Power Supplies
- Variable DC output: 0 to +15V & 0 to -15V @ 500mA
  Fixed DC output: +5VDC, 1A; -5VDC, 300mA
- Input power: 120/220VAC @ 50-60Hz (switchable)

Function Generator
- Frequency ranges: 1Hz–10Hz, 10Hz–100Hz, 100Hz–1kHz, 1kHz–10kHz, 10kHz–100kHz
- Sine wave output: 0–8 Vpp variable • Triangle wave output: 0–6 Vpp variable
- Square wave output: 0–8 Vpp variable

Other features:
- 2 variable resistors: VR1=1kΩ, VR2=100kΩ • 8 data switches • 2.5" dia. 8Ω, 25W speaker
- 2 pulse switches (2 sets of outputs: $\bar{A}$, A, $\bar{B}$, B) • 2 banana sockets, 2 BNC jacks • One-year warranty
- Two 7-segment LED displays (digit height: 0.3") • 8 red LEDs with separate input terminals



International 120/220VAC Switchable

Includes: Power cord and manual

Part No.	Description	Size (W" x D" x H")	Weight (lbs.)	1	10	25
136266	Digital-analog lab	12.8 x 9.8 x 3.7	8.5	$359.95	$324.95	$299.95

AC/DC Power Supply

Ideal for Breadboards on page 90



International 120/220VAC Switchable

Output Specifications:
+5VDC @ 1A; -5V @ 300mA fixed;
0 to +15VDC @ 500mA variable,
0 to - 15VDC @ 300mA variable;
12-6-0-6-12 tapped VAC, 300mA fixed

With built-in short-proof regulated power supplies.
- Input power: 120/220VAC @ 50-60Hz (switchable)
- Indicator lamps and power fuses
- Just plug-in and start to use
- Compact and lightweight
- For both digital and analog circuits
- Color: beige
- Compatible with test leads P/N 77841, pg 107
- Size: 7.4"W x 5.5"D x 2.6"H
- Weight: 5.5 lbs. • One-year warranty

Part No.	Description	1	10	25
77681	Power supply	$119.95	$109.95	$99.95

Powered Project Board

- Solderless breadboard with 2420 tie points
- DC power supplies: +5V @ 1A; variable power 0 to +15VDC and 0 to -15VDC @ 500mA
- Back panel has ground terminal
- Outputs are short-circuit protected
- Edge plate for non-DIP size components
- Input power: 120/220VAC @ 50-60Hz (switchable)
- Replacement fuse: P/N 103907, pg 67
- Power switch with light
- Breadboard size: 7.4"L x 6.8"W
- Enclosure size: 9.8"L x 8.0"W x 2.6"H
- Weight: 6.8 lbs.
- One-year warranty



International 120/220VAC Switchable

CE

Includes: Power cord

Part No.	Description	1	10	25
136258	Powered breadboard	$99.95	$89.95	$79.95

Part Number Color Code
New Sale Refurbished Closeout

General Purpose Prototyping Boards

Select the prototype board that fits your needs from our comprehensive product listing. Prototyping boards with punched holes are convenient, economical tools for assembling circuit components and trying cost-effective alternatives to custom designs.

- 0.062" board thickness
- 0.1" hole spacing
- 0.08" pad size
- Plated through pads are double-sided
- PCB material epoxy glass

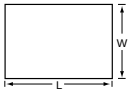

105110


21434

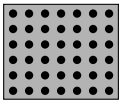

52943

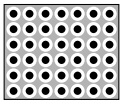

21477

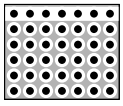
Board Outline

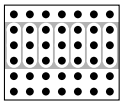


Circuit Patterns


A
Holes Only


B
Pad Per Hole


C
Power/Ground Perimeter Bus with Pad Per Hole


D
3 Hole Solder Pad and Bus

See pg 96 for PCB mounting enclosures and hardware (recommend P/N 106551)

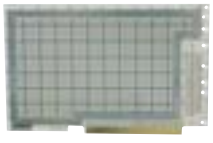
Part Number	Mfr. Cross Ref. No.	Size (W" x L")	Fits Enclosure(s) (see page 96)	Circuit Pattern	Hole Pads	# Holes x Dia. †	Power/Ground Busses	Connector I/O or Edge	# Mounting Holes x Dia.	Weight (lbs.)	Pricing 1	10	50	100
105099	2855PCB	1.60 x 2.70	18921	B	single-sided	288 x .035"	none	none	2 x .115"	.02	$4.95	$4.49	$3.95	$3.59
105101	5002PCB	1.50 x 3.50	11957	C	single-sided	365 x .038"	4	none	2 x .140"	.02	6.95	6.25	5.59	4.95
105128	2853PCB	2.00 x 4.40	18913, 11965	C	single-sided	669 x .038"	4	none	4 x .140"	.03	7.95	6.95	6.25	5.59
105110	2300PCB	2.40 x 3.40	11869, 11914	C	single-sided	637 x .038"	4	none	2 x .140"	.03	7.95	6.95	6.25	5.59
28177	PCB1	2.42 x 4.10	18913	C	plated through	674 x .040"	none	none	4 x .120"	.04	5.95	5.35	4.79	4.29
105152	2851PCB	3.10 x 5.50	18892	C	single-sided	1450 x .035"	7	none	4 x .140"	.07	9.95	8.95	7.95	6.95
105136	2320PCB	3.30 x 4.50	11885	C	single-sided	1266 x .035"	4	none	4 x .140"	.06	9.95	8.95	7.95	6.95
105161	2852PCB	3.60 x 7.00	18905, 11973	B	single-sided	2225 x .035"	4	none	4 x .140"	.10	14.95	13.45	11.95	10.95
105144	2743PCB	4.50 x 4.70	11922	C	single-sided	1869 x .035"	6	none	4 x .120"	.09	13.95	12.49	11.25	9.95
21434	JE401(8001)	4.50 x 6.50	18868	B/D	single-sided	2360 x .042"	2	none	none	.12	20.95	18.95	16.95	15.49
21451	JE405(8003)	4.50 x 6.50	18868	C	single-sided	2360 x .042"	1	none	none	.12	19.95	17.95	15.95	13.95
43140*	64P44XXXP	4.50 x 6.50	18868	A	drilled only	2860 x .042"	none	none	none	.09	6.95	6.59	6.25	5.95
52943	84P44WE	4.50 x 8.50	18876	A	drilled only	3740 x .042"	none	none	none	.15	11.95	11.35	10.79	10.25
37604	169P44WE	4.50 x 17.0	N/A	A	drilled only	7524 x .042"	none	none	none	.31	16.95	16.25	15.49	14.69
37612*	169P44XXXP	4.50 x 17.0	N/A	A	drilled only	7524 x .042"	none	none	none	.25	12.95	12.29	11.69	10.95
105179	2505PCB	5.00 x 6.50	11893, 18868, 11949	C	single-sided	2829 x .035"	7	none	8 x .120"	.13	14.95	13.49	11.95	10.95
28193	PCB3	5.00 x 8.00	18876	C	plated through	3705 x .042"	4	mounting area-I/O	4 x .120"	.17	23.95	20.95	19.95	17.95
21477	JE407(8006)	5.00 x 13.25	N/A	B	plated through	6063 x .038"	none	none	8 x .120"	.28	39.95	35.95	32.49	28.95
105187	2507PCB	6.10 x 8.80	18876	C	single-sided	4771 x .035"	7	none	8 x .140"	.21	29.95	26.95	23.95	21.95
37621	169P84WE	8.50 x 17.0	N/A	A	drilled only	14448 x .042"	none	none	none	.53	23.95	22.75	21.59	20.49

* PCB material: phenolic † All 0.042" diameter hole boards use terminals T44, T49, and T421 (see below)

ISA Printed Circuit Prototyping Boards

Printed circuit prototyping boards for virtually any application – including those requiring high component densities and solder or wire wrap connections.
All boards are manufactured to precision standards and specifications.
All bus and circuit patterns are solder-coated for user convenience.

- Edge contacts: gold


21531


28206

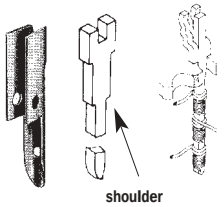
Part Number	Mfr. Cross Ref. No.	Description	Size (Inches) W x L	Terminals (below) T44	T49	T421	I/O Connector (not included)	Circuit Pattern	Hole Pads	# Holes x Dia.	Power/ Ground Bus	# Mounting Holes x Dia.	Weight (lbs.)	Pricing 1	10	25
21531	JE417	PC/XT 8-bit	4.2 x 6.5	yes	yes	yes	D-sub 9, 15, 25 & 37	C	plated through	2126 x .042"	2	8 x .120"	.12	$22.95	$20.49	$18.49
28206	PCB4	PC/XT/AT 16-bit	4.25 x 13.13	yes	yes	yes	D-sub 9, 15 & 25	C	plated through	4890 x .042"	2	4 x .120"	.23	26.95	24.25	21.85

• **See page 96 for circuit board mounting hardware** • **See page 97 for aluminum round and hex spacers & standoffs**

Wire Wrap and Push-In Terminals

For .042" Diameter Holes

Specifications:
• Material: copper alloy • Prebagged 100 pcs.
34147: Push-In Micro-Klip Terminals
• Overall length: .36" • Post size: .032" x .045"
34155: Miniwrap Wiring Terminals • Shoulder: .045"
• Two-prong with square tail for wire wrapping
• Overall length: .69" • Post size: .025"Sq.
34163: Klipwrap Wiring Terminals • Shoulder: .045"
• Three-prong with square tail for wire wrapping
• Overall length: .83" • Post size: .025"Sq.



34147 34155 34163

Part Number	Mfr. Cross Ref. No.	Height Above .062" Board	Length Below .062" Board	100 pc. units 1	10
34147	T421	.200	.097	$6.95	$6.25
34155	T44	.065	.530	6.95	6.25
34163	T49	.200	.530	11.95	10.79

Copper-Plated Blank Circuit Boards

Ideal for hobbyists and students doing prototypes of circuits. Copper plating on board for either single-sided or double-sided boards.

- 1.6mm thickness


Fig. 1


Fig. 2


Fig. 3

Part No.	Mfr. Cross Ref. No.	Size (L" x W")	Fig.	Wt. (lbs.)	1	10	50
Single Side							
169279	PCBS3X6	3.0 x 6.0	3	0.1	$2.95	$2.65	$2.39
169287	PCBS6X6	6.0 x 6.0	2	0.2	4.95	4.49	3.95
169295	PCBS12X12	12.0 x 12.0	1	0.5	13.95	12.56	11.30
Double Side							
169308	PCBD3X6	3.0 x 6.0	3	0.1	4.95	4.45	3.95
169316	PCBD6X6	6.0 x 6.0	2	0.2	7.95	7.15	6.45
169324	PCBD12X12	12.0 x 12.0	1	0.7	17.95	15.95	14.49

EDWin 2000 Electronics CAD/CAE Software

A special license available for home users, students, educational establishments and businesses wishing to evaluate the system.



- 500 device library; 100 component database
- Schematic capture: autopackaging and autocheck
- Layout design (28 layers): autoplacement and autocheck
- Optional autorouting
- Mixed-mode simulation: diagram generator
- Postprocessing: Gerber 274D, 274X, NC drill, pick and place

System requirements: 486 or higher compatible, Windows® 9X/NT, min.100MB hard drive space, 16MB of RAM, SVGA color monitor, graphics controller card and mouse; EDWin runs in Windows® 9x/NT and is fully integrated

Part No.	Description	Wt. (lbs.)	1	10
181892	EDWin 2000 Basic	0.79	$299.95	$279.95

WinDRAFT Schematic Design Software

"…still one of the most flexible, best featured, and economical schematic capture programs on the market suitable for professional use." — Desktop Engineering



- Supports up to 450 pin designs

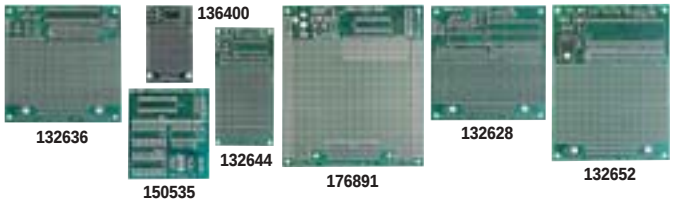
System requirements: 486/DX2, 10MB hard drive space, 8MB RAM, SVGA (800 x 600)

Part No.	Description	Wt. (lbs.)	1	10
142981	WinDRAFT Electronic Schematic CAD	1.6	$139.95	$125.95

"PICProto" Prototyping Boards

- High quality blank prototyping boards for PICmicro microcontrollers
- Large prototyping area
- Holds microcontroller, 5V regulator, oscillator, capacitors and DB9-25 connector
- Double-sided board with plated-through holes
- Solder mask on both sides makes soldering easy • Silkscreen legend

Includes: Documentation sheet with schematic, suggested parts and placement



PICProto 18, 18L: For all 18-pin PICs including PIC16C52, 54, 56, 58, 554, 558, 61, 620, 621, 622, 71, 710, 711, 712, 715, 716, 84, 16CE623, 624, 625, 16F627, 628, 83, and 84

Part No.	Description	Size (L" x W")	1	10
132644	PICProto 18	3.0 x 1.5	$9.95	$8.95
176891	PICProto 18L	3.6 x 4.1	19.95	17.95

PICProto 3: For the 28-pin PIC16C62, 63, 642, 66, 72, 76, 773, 16F73, 76, 870, 872, 873, 876, 18C242, and 252

132636	PICProto 3	3.0 x 3.0	$14.95	$13.49

PICProto 64: For the 40-pin PIC16C64, 65, 662, 67, 74, 77, 774, 16F74, 77, 871, 874, 18C422, and 452

132652	PICProto 64	4.0 x 3.0	$16.95	$14.95

PICProto 8: For all 8-pin PIC12Cxxx and 12Cexxx

136400	PICProto 8	2.0 x 1.2	$8.95	$7.95

PICProto Dual: For 18-pin PIC16C52, 54, 56, 58, 554, 558, 61, 620, 621, 622, 71, 710, 711, 712, 715, 716, 84, 16CE623, 624, 625, 16F627, 628, 83, and 84, as well as the 28-pin PIC16C55, and 57. It will accept either the standard 0.6" 28-pin device or the 0.3" skinny DIP

132628	PICProto Dual 18/28	3.0 x 3.0	$14.95	$13.49

PICProto S1: For working with circuits in "Easy PIC'n" and PIC'n Up the Pace"(books sold on page 165). Holds 18-pin PICmicro, oscillator, 5-volt power supply, DIP switches, and socket to solderless breadboard

150535	PICProto S1	2.1 x 1.9	$14.95	$13.49

EPIC Plus PICmicro Programmer

The EPIC Plus Programmer quickly and easily programs the PIC12Cxxx, 12CExxx, 16C505, 16C55x, 6xx, 7xx, 84, 9xx, 16CE62x, 16F62X, 7x, 8x, 87x, 14C000, 17C7xx, 18Cxxx microcontrollers from Microchip. The basic programmer includes an 18-pin socket for programming 8, 14 and 18-pin PICmicro MCUs. Devices available separately on page 9.



- Simple installation with parallel port (printer) interface
- Interactive software for Windows and DOS
- Command line operation for automated, non-interactive programming
- PICmicro Assembler software included

Requires: Two 9V batteries or AC adapter (below)

Part No.	Description	1	10
132679	EPIC Plus PICmicro programmer	$64.95	$58.45
136397	8/18/20-pin ZIF adapter	39.95	35.95
132610	40/28-pin ZIF adapter	39.95	35.95
154763	In-circuit programming adapter (18-pin)	49.95	44.95
162317	AC wall adapter (16VDC/500mA, details on page 62)	7.95	6.95
67256	6' DB25 cable (details on page 144)	6.45	5.79

PICBasic and PICBasic Pro Compiler

PICBasic converts your BASIC programs into files that can be programmed directly into a PICmicro MCU.

- Compatible with most PICmicro MCU programmers including EPIC plus
- Use in DOS or Windows (includes Windows editor/DE software)
- I2C instructions to access external serial EEPROMs
- In-line assembler and call support


132661

132661: PICBasic Compiler

- Expanded BASIC Stamp I compatible instruction set
- PEEK and POKE instructions to access any register from BASIC
- Serial speeds to 9600 baud
- Supports PC12C67x, PIC14Cxxx, PIC16C55x, 66x, 7xx,84, 92x, and PIC16CF8xx microcontrollers • May use up to 2k of code space

150543: PICBasic Pro Compiler

- Direct and library routine access to any pin or register
- Automation page boundary handling past 2k • Bit, byte, word arrays
- Real If…Then…Else…Endif • Hierarchical expression handling
- Interrupts in BASIC and assembler • BASIC Stamp I and II library
- Built-in LCD support • MPLAB/MPASM/ICE compatibility
- Supports 12C5xx, 12C67x, 12CE67x, 14C000, 16C5x, 16C55x, 6xx, 7xx, 84, 92x, 16CE62x, 16F62x, 7x, 8x, 87x, 17Cxxx, and 18Cxxx microcontrollers

Part No.	Description	1	10
132661	PICBasic compiler	$99.95	$89.95
150543	PICBasic Pro compiler	249.95	224.95

LAB-X1 Experimenter's Module Board

The LAB-X1 is a pre-assembled experimenter's platform. It provides an assembled testbed containing most of the circuitry commonly used with PICmicro microcontrollers (MCUs). Many different projects may be created using the LAB-X1, including calculator, voltmeter, LCD backpack, tone dialer, and RC servo controller.



- 40-pin ZIF socket for PICmicro MCU (not included, PIC16F877-20/P recommended) • Jumper selectable oscillator from 4MHz to 20MHz
- Reset button • 16 switch keypad • 3 potentiometers • LED bargraph
- 2 lines x 20 characters LCD module • Speaker • 2 RC servo connectors
- RS232 interface • Socket for RS485 interface (device not included)
- Socket for I2C & SPI serial EEPROM (device not included) • One-year warranty
- Socket for Microwire serial EEPROM (device not included)
- Socket for real time clock/serial analog to digital converter (devices not included)
- EPIC in-circuit programming connector • Prototyping area for additional circuit
- Wiring for microchip in-circuit debug connector • Size: 5.5" x 5.6"

Requires: AC adapter (below)

Part No.	Description	1	10
169113	LAB-X1 Experimenter Board	$199.95	$189.95
176903	LAB-X1 Experimenter Board Kit	149.95	139.95
198168	LAB-X2 for 28 and 40-pin MCUs	69.95	62.95
198176	LAB-X3 for 18-pin MCUs	119.95	107.95
176882	PIC16F877-20/P microcontroller (pg 9)	9.49	8.49
127976	AC adapter (details on page 61)	4.75	4.25

Part Number Color Code: New Sale Refurbished Closeout

High-Speed Universal Device Programmer/Tester

Parallel Port Interface

NEW



207765

- 48-pin universal ZIF socket accepts any number of pins
- Programs Flash memory, PROM, EPROM, EEPROM, Serial (E)EPROM, Bipolar PROM, PAL, PALCE, GAL, NVRAM, PEEL, EPLD, SPLD, CPLD, PIC & Microcontrollers
- Tests TTL, CMOS, DRAM and Static RAM ICs
- 5000+ device types supported
- On-board FPGA for speed; 4 times faster than offshore brands
- Supports real 5.0V; 3.3V, 2.7V, 2.0V & 1.8V devices
- Hardware diagnostic program examines all 48-pin drivers
- Supports POF and JEDEC formats
- Detects pin locations for poor or damaged contacts
- Current limiting protects hardware circuits from improperly inserted or defective chips
- High-speed device function tests and user creatable test library
- Read, blank check, program, verify, checksum, data compare, security, auto (erase, blank check, program, verify), and option bit program function
- Built-in editor for both buffer date and test vectors
- CE/CUL/CSA quality certified



207757



207749

MADE IN USA

Includes: Parallel cable, installation diskette, power cord and manual

System Requirements: IBM PC, XT, AT, 386, 486, Pentium®, hard drive, 512k RAM, Windows® 95/98/2000/NT, and parallel port

Part No.	Description	1	5
207765	TOPMAX	$899.95	$854.95
207757	32-pin DIP adapter	289.95	274.95
207749	32-pin PLCC adapter	499.95	474.95

16kB-8MB Universal IC Programmer/Tester

Serial Port Interface



HI-LO SYSTEMS

- 40-pin universal ZIF socket
- Programs PROMs, EPROMs, EEPROMs, flash memory, serial PROMs, BPROMs, DSP, microcontrollers, PLD/CPLD/FPGA, PALs, GALs, PEEL and EPLD
- Load file, read master, program, verify, auto, id check, checksum, blank check, erase, secure, protect/unprotect, edit, file transfer, function configuration, self-test functions
- IC tester function supports CMOS, SRAM and TTL
- Supports popular file formats including Intel HEX, Motorola S-records, binary, JEDEC fuse map, Altera POF and others • One-year warranty

Includes: Programmer, serial cable, software, manual, & table top power supply w/ 6' power cord

System requirements: 486, Pentium® and higher; Windows® 95/98/NT/2000

206922



206922: 1.1" x 0.46" EPROM & DIP window labels; UV opaque; accepts ink or pencil (168 per pack)

SALE NEW

Part No.	Description	1	10
168348	Serial univ. prog./tester	$899.95	$799.95
206922	1.1" x .046" window label	6.95	5.95

Versatile, Production Quality Universal Programmers

Parallel Port Interface

NEW



207781

- **207773:** 48-pin ZIF socket
- **207781:** One 48-pin and three 32-pin ZIF sockets
- 3000+ device types supported
- Supports EPROM, flash, microcontroller, Serial (E)EPROM, EPLD, PALCE, GAL, PEEL
- Auto search device select function
- Fast programming speed with IC vendor approved algorithms
- Built-in editor for both buffer date and test vectors
- Supports JEDEC, Intel Hex, Motorola S Records, Binary and ASCII file formats with File LOAD/SAVE command
- Built-in macro commands for programming

MADE IN USA

Includes: 01/02/03 personality modules, parallel cable, wall adapter, diskette and manual

System Requirements: IBM PC, XT, AT, 386, 486, Pentium® or compatibles, DOS 2.11 or greater, Windows® 95/98/2000/NT/XP; hard disk, 512k RAM and standard parallel port

Part No.	Description	1	5
207773	MEGAMAX programmer	$399.95	$379.95
207781	MEGAMAX4G prog.	449.95	426.95

One-Socket EPROM Programmers 1MB and 8MB

Serial Port Interface

ART Applied Reader Technology CE



82384

- ZIF socket
- Motorola s1f, s2f and s3f can convert to binary or ASCII prior to download
- Baud rate configurable
- Data bits: 8 • Start/Stop bits: 1
- Parity: none, even, odd, default none
- Flow control: none, RTS/CTS, XON/XOFF, Default RTS/CTS • One-year warranty

82384:

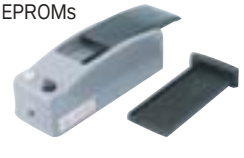
- Programs EPROMs up to 512kbits and the Intel 27CO11 (1Mbits); 2716-27512; 2804-8256; also 27CXXX and 28CXXX series
- Selectable VPP from 5V-25V • Maximum pins: 28

81699:

- Command line interpreter enables the user to enter one or more single character commands at once
- Programs EPROMs up to 8Mbits: 2716-27080; 2804-28256; also 27CXXX and 28CXXX series
- Maximum pins: 32 • Weight: 3.0 lbs.

Part No.	Description	1	10
82384	1Mbits EPROM prog.	$199.95	$179.95
81699	8Mbits EPROM prog.	209.95	188.95

HI-LO SYSTEMS EPROM Eraser



- Erases all UV erasable EPROMs
- Holds a total of 16 EPROMs 32-pin
- Upper and lower erasing chambers
- Conductive foam liner eliminates static build-up • One-year warranty
- Size: 8.5"L x 2.8"W x 2.8"H • Weight: 1.6 lbs.

Includes: AC adapter – 9VDC @ 600mA and a timer which turns eraser off at the end of the selected time period – 10 to 60 minutes

Part No.	Description	1	10
121267	EPROM eraser	$149.95	$134.95

Fast, Low-Cost Universal Device Programmer

Parallel Port Interface

NEW



- 40-pin ZIF socket
- Programs (E)EPROM, PROM, Serial PROM, PALCE, GAL, flash memory, microcontrollers, ATF
- 2000+ device types supported
- Menu driven software
- On-board FPGA for speed; 4 times faster than offshore brands
- Auto search device select function supports (E)EPROM & microcontrollers
- Device insertion test identifies improperly inserted device before programming
- Auto programming for production programming
- Read, blank check, program, verify, checksum, data compare, security, auto function

MADE IN USA

Includes: Parallel cable, wall adapter, diskette and manual

System requirements: IBM PC, XT, AT, 386, 486, Pentium®, hard disk, 512k RAM, standard parallel port, MS-DOS 2.11 or higher, Windows® 95/98

Part No.	Description	1	5
207731	CHIPMAX	$349.95	$332.95

Stand-Alone Linear IC Tester

Identify and test op amps, comparators, optocouplers, transistor arrays, analog switches and voltage regulators.



- Tests 8 to 24-pin devices
- Auto feature lists type & device no.
- One-year warranty
- Display: 16 x 1 character LCD dot matrix
- Size: 6.4"L x 4.4"W x 1.8"H • Weight: 1.7 lbs.

Includes: 9VDC adapter

Part No.	Description	1	10
130147	Linear IC tester	$649.95	$584.95

UVP EPROM Erasers and Accessories

66042:



66042

- Erases all EPROMs
- Erases 1 chip in 7 minutes
- Conductive foam liner eliminates static build-up
- UV intensity: 6.5mW/cm²
- One-year warranty
- Size: 6.8"L x 1.5"W x 2.3"H • Weight: 0.8 lbs.

Requires: Four AA batteries (not included), recommend P/N 32627 (below)

15712:



15712

- Erases all EPROMs
- Erases 1 chip in 15 min.
- Erases 8 chips in 21 minutes
- Maintains constant exposure distance of 1"
- Conductive foam liner eliminates static build-up
- Built-in safety lock to prevent UV exposure
- Complete with holding tray for 8 chips
- UV intensity: 6.8mW/cm² • One-year warranty
- Size: 9.0"L x 3.7"W x 2.6"H • Weight: 2.3 lbs.

Part No.	Description	1	10	25
66042	Portable eraser	$64.95	$58.95	$52.95
15712	8-chip eraser	129.95	117.95	106.95
34382	Lamp for 15712	34.95	34.95	34.95
13864	Foam (12"x24"x0.25")	7.95	6.95	5.95
32627	'AA' Ni-Cad battery	1.95	1.75	1.49

512k Two-Socket E(E)PROM Programmer

Compact unit operates stand-alone or interfaces with your computer via the printer port.



- Programs EPROMs up to 25V, Flash EPROMs (5V and 12V) EEPROMs, and SRAMs
- 2 sockets for master/ slave operation
- Stand alone mode uses two optional 9V batteries (P/N 151095, pg 168) or included 12VDC @ 500mA adapter
- One-year warranty
- Size: 6.4"L x 4.3"W x 2.2"H

FUNCTIONS

Stand alone mode

- Functions Set - Blank check
- IC Type select - Program
- Verify and check sum

Remote control mode

- Type - Read - Program
- Verify - Disk - Help
- Process - Parameter

Includes: Adapter, cable and CD-ROM

Part No.	Description	1	10
130155	EPROM writer	$289.95	$259.95

NEMA 4X Plastic Enclosures

HG: high profile FIBOX



- Impact resistant
- Color: gray
- Short term temperature range: -40˚C to 120˚C
- Continuous temperature range: -40˚C to 80˚C
- Height: 2.0" (body); 1.0" (cover)
- Cover screw material: polyimide (PA)
- UL94-5V flammability rating

191708: Size: 7.1"L x 7.1"W; Weight: 1.04 lbs.

191716: Size: 10.0"L x 7.1"W; Weight: 1.34 lbs.

Part No.	Product No.	1	10	100
191708	ULPC175/75HG	$27.39	$24.65	$22.19
191716	ULPC200/75HG	47.59	42.89	38.55

Wall Transformer Enclosures

- Enclosures include 3-prong power plug and cable strain relief
- Material: noryl
- Color: black
- Size: 3.4"H x 2.7"W x 2.3"D



115051

Part No.	Style	1	10	100
115051	Non-vented	$2.25	$1.95	$1.69
115043	Vented	2.25	1.95	1.69

30-Day Money-Back Guarantee

If you're not satisfied we'll take it back!

Details on page 181

PCB Development Tools & Books

Photo Etch™ Printed Circuit Kit

Generate your own 1:1 artwork. Then use the patented Fast Neg film process to make a photo negative and sensitize & expose a blank copper board. Finish by developing and etching. No camera or darkroom is required. • Wt.: 4.6 lbs.

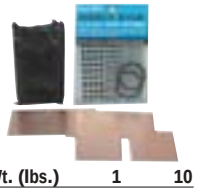


*** Shipped via UPS ground to continental U.S. only.**

Part No.	Prod. No.	Description	1	10
16731	12-750*	Printed circuit kit	$39.95	$36.95

Direct Etch PCB "Starter" Set

Includes: 4 blank circuit boards, dry concentrated ferric chloride etchant, instructions, 8 sheets of direct etch donuts, DIPS, patterns lines and 1/32" & 1/16" etch resist tape.



Part No.	Prod. No.	Description	Wt. (lbs.)	1	10
70412	ER1	PCB kit	0.7	$11.95	$10.95

Accessories



16758



16723



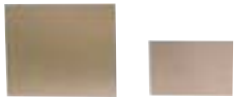
70261

Part No.	Prod. No.	Description	Wt. (lbs.)	1	10
16758	ER8*	Negative-acting resist developer 16 oz.	1.2	$6.95	$5.95
16723	ER18	TINNIT™ 1 pint	0.2	6.95	5.95
70261	ER71*	Negative-acting photo resist liquid 4 oz.	0.5	8.95	7.95
70480	ER181	TINNIT™, 1/2 gallon size (bulk pack)	0.6	15.95	14.49

***Shipped via UPS ground to continental U.S. only**

Single-Sided Copper-Clad Circuit Boards

One 5" x 6" and one 3" x 4.5" (copper clad one sided) 1/16" phenolic circuit board.



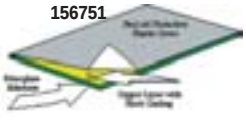
Part No.	Prod. No.	Description	1	10	25
16707	ER11	Circ. boards	$5.95	$5.35	$4.79

Pre-Sensitized Circuit Boards & Developer

- Pre-coated circuit board
- Size: 3.0"L x 4.0"W x 1/16"T

Includes: Instructions

156751



Part No.	Description	1	10	25
156751	Single sided	$4.95	$4.49	$3.95
156742	Double sided	6.49	5.85	5.25
156734*	4 oz. Pos. developer	6.95	5.95	4.95

***Shipped via UPS ground to continental U.S. only**

Dry Concentrated Etchant

- Makes one pint of etch solution

Part No.	Prod. No.	Description	1	10	25
70201	ER3	Dry etchant	$3.95	$3.49	$2.95

Making Your Own Printed Circuit Board Book

JV Enterprises No darkroom or special equipment needed. Shows steps for drilling and shaping your printed circuit board and the materials you will need. (91 pages)

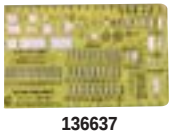


- Size: 8.5" x 11"
- Weight: 0.5 lbs.

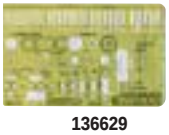
Part No.	Description	1	10
141524	Making PCBs Book	$19.95	$17.95

Electronic Design Templates

These design templates are used to create simple schematic diagrams. The templates consist of electronic/electrical symbols such as resistors, capacitors (axial, radial, disc types), diodes, semiconductors in different packaging types, and center spacings.



136637



136629

Includes: Symbols, components and center spacing layouts

Part No.	Description	Scale	1	10	25
136637	Template "A"	1:1	$6.95	$6.25	$5.59
136629	Template "B"	2:1	6.95	6.25	5.59

Acid Brush

- Used for application of reactive solvents
- Metal handle
- Length: 6"



Part No.	Description	1	10	100	1000
153322	Acid brush	$.59	$.49	$.36	$.25

Modern Electronics Soldering Techniques Book

Prompt Publishing Learn the art of electronics soldering. The author goes beyond the basic aspects of soldering and thoroughly discusses other key areas of electronics technology such as correct handling and identification of components. Also covered is the art of reading, converting schematics and improving your knowledge of test concepts. (293 pages)



SALE

- Size: 6.0" x 9.0"
- Weight: 1.0 lb.

Part No.	Description	1	10
185498	Modern Electronics	$19.95	$17.95

For additional books see pages 165 - 175

Part Number Color Code
New Sale Refurbished Closeout

Prototype Builder Boards, Enclosures and Hardware

Call for additional OEM pricing.

The prototype builder boards on this page are specifically designed to fit into our ABS speedy boxes, die cast aluminum enclosures, aluminum boxes, metal cabinets and heavy-duty instrument cases shown in each grouping. These pre-cut boards have 2 or 4 mounting holes compatible with the PC board mounting hardware listed at the bottom, right (P / N 106551).

Board description: laminated glass epoxy 1 / 16" thick fire retardant per FR-4 specs. Copper-clad and solder mask one side. Drilled holes: .035" diameter on .080" square pad. Pads spaced on .10" x .10" grid.



See page 97 for hardware and knobs; see page 92 for more printed circuit board details

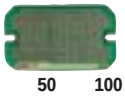
ABS Speedy Enclosures



Will not crack or split when drilled or punched. PCB mounting slots on all four sides. Lid has a lip for precision fit (adds 0.4" height). Complete with four screws and lid. All sizes below are for interior dimensions. • Color: black • ABS plastic

Part No.	Mfr. Cross Ref. No.	Size (L x W x D)	Wt. (lbs.)	1	10	50	100
18921	H2855	3.1" x 2.0" x 0.9"	0.1	**$2.69**	**$2.39**	**$2.19**	**$1.99**
18913	H2853	4.9" x 2.5" x 1.5"	0.2	**2.79**	**2.49**	**2.25**	**1.99**
18892	H2851	6.0" x 3.5" x 1.9"	0.4	**3.39**	**3.05**	**2.75**	**2.45**
18905	H2852	7.5" x 4.3" x 2.3"	0.5	**5.35**	**4.59**	**4.09**	**3.35**

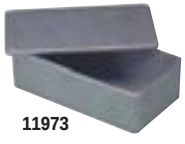
Printed Circuit Boards for Above Enclosures



• Power/ground, perimeter bus with pad per hole (*except P/N 105099) • Plated one side holes

Part No.	Mfr. Cross Ref. No.	Size (L x W)	No. of Holes	1	10	50	100
105099*	2855PCB	2.7" x 1.6"	288	**$4.95**	**$4.49**	**$3.95**	**$3.59**
105128	2853PCB	4.4" x 2.0"	669	**7.95**	**6.95**	**6.25**	**5.59**
105152	2851PCB	5.5" x 3.1"	1450	**9.95**	**8.95**	**7.95**	**6.95**
105161	2852PCB	7.0" x 3.6"	2225	**14.95**	**13.45**	**11.95**	**10.95**

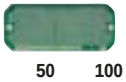
Die-Cast Aluminum Enclosures



High-quality die-cast aluminum cases come with channeled walls for easy PCB mounting. Ideal for RF circuits because the lid forms an effective screen against RFI interference. Made from aluminum, an excellent heat-sink, these cases are great for high temp circuits (up to 600°C). Complete with screws.

Part No.	Mfr. Cross Ref. No.	Size (L x W x D)	Wt. (lbs.)	1	10	50	100
11957	B5002	3.9" x 2.0" x 1.0"	0.2	**$4.49**	**$3.95**	**$3.49**	**$3.19**
11965	B5004	4.7" x 2.4" x 1.6"	0.4	**7.95**	**7.15**	**6.44**	**5.79**
11973	B5006	7.5" x 4.3" x 2.4"	1.2	**11.49**	**10.39**	**9.39**	**8.39**

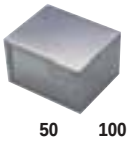
Printed Circuit Boards for Above Enclosures



• Power/ground, perimeter bus with pad per hole
• Plated one side holes

Part No.	Mfr. Cross Ref. No.	Size (L x W)	No. of Holes	1	10	50	100
105101	5002PCB	3.5" x 1.5"	365	**$6.95**	**$6.25**	**$5.59**	**$4.95**
105128	5004PCB	4.4" x 2.0"	669	**7.95**	**6.95**	**6.25**	**5.59**
105161	5006PCB	7.0" x 3.6"	2225	**14.95**	**13.45**	**11.95**	**10.95**

Aluminum Enclosures



Ideal boxes for those projects that get left lying around! Put them in an economical aluminum enclosure. The enclosure comes in two pieces which slide together.

Part No.	Mfr. Cross Ref. No.	Size (L x W x D)	Wt. (lbs.)	1	10	50	100
11869	B2300	4.0" x 2.0" x 2.8"	0.2	**$4.49**	**$3.95**	**$3.65**	**$3.29**
11885	B2320	5.0" x 4.0" x 3.0"	0.4	**5.95**	**4.95**	**4.49**	**3.95**
11893	B2335	7.0" x 6.2" x 4.6"	0.8	**7.95**	**6.95**	**6.25**	**5.59**

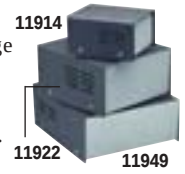
Printed Circuit Boards for Above Enclosures



• Power/ground, perimeter bus w/ pad per hole
• Ground Bus • Plated one side holes

Part No.	Mfr. Cross Ref. No.	Size (L x W)	No. of Holes	1	10	50	100
105110	2300PCB	3.4" x 2.4"	637	**$7.95**	**$6.95**	**$6.25**	**$5.59**
105136	2320PCB	4.5" x 3.3"	1266	**9.95**	**8.95**	**7.95**	**6.95**
105179	2335PCB	6.5" x 5.0"	2829	**14.95**	**13.49**	**11.95**	**10.95**

Metal Enclosures



High-quality metal enclosures are made to suit a large variety of electronics projects and applications. The base is made of aluminum. Slots are located on the sides of the cases for maximum cooling. Cases screw together and come with an attractive two-tone finish.
• Mounting screws and rubber feet included

Part No.	Mfr. Cross Ref. No.	Size (L x W x D)	Wt. (lbs.)	1	10	50	100
11914	B2741	4.0" x 3.3" x 2.2"	0.4	**$6.49**	**$5.89**	**$5.25**	**$3.75**
11922	B2743	5.9" x 5.3" x 3.0"	0.8	**6.95**	**6.25**	**5.59**	**4.95**
11949	B2744	7.3" x 6.3" x 2.8"	1.1	**7.95**	**6.95**	**6.25**	**5.59**

Printed Circuit Boards for Above Enclosures

• Power/ground, perimeter bus with pad per hole • Plated one side holes

Part No.	Mfr. Cross Ref. No.	Size (L x W)	No. of Holes	1	10	50	100
105110	2741PCB	3.4" x 2.4"	637	**$7.95**	**$6.95**	**$6.25**	**$5.59**
105144	2743PCB	4.7" x 4.5"	1869	**13.95**	**12.49**	**11.25**	**9.95**
105179	2744PCB	6.5" x 5.0"	2829	**14.95**	**13.49**	**11.95**	**10.95**

Heavy-Duty Instrument Cases



Both cases split apart for ease of working. Four plastic feet molded on unit. P / N 18876 includes ventilation and speaker sound slots. • Color: gray

Part No.	Mfr. Cross Ref. No.	Size (L x W x D)	Wt. (lbs.)	1	10	50	100
18868	H2505	7.9" x 6.3" x 2.5"	0.8	**$7.39**	**$6.69**	**$5.99**	**$5.39**
18876	H2507	10.0" x 7.5" x 3.1"	1.4	**8.99**	**7.99**	**7.28**	**6.55**

Printed Circuit Boards for Above Instrument Cases

• Power/ground, perimeter bus with pad per hole • Plated one side holes

Part No.	Mfr. Cross Ref. No.	Size (L x W)	Holes	1	10	50	100
105179	2505PCB	6.5" x 5.0"	2829	**$14.95**	**$13.49**	**$11.95**	**$10.95**
105187	2507PCB	8.8" x 6.1"	4771	**29.95**	**26.95**	**23.95**	**21.95**

ABS Enclosures w/ Clear Tops



Made of gray ABS plastic w / clear polycarbonate top cover. Includes screws for mounting boards or electronic components, rubber gasket for a tight seal on your equipment & drilled holes for mounting.

Part No.	Mfr. Cross Ref. No.	Size (L x W x D)	Wt. (lbs.)	1	10	50	100
141831	203C1	4.6" x 3.2" x 1.8"	0.3	**$8.45**	**$7.55**	**$6.85**	**$5.75**
141840	203D1	6.3" x 3.2" x 1.8"	0.4	**8.95**	**7.95**	**6.95**	**5.95**
141858	203F1	7.0" x 5.5" x 2.5"	0.8	**9.95**	**8.95**	**7.95**	**6.95**

Mounting Hardware for PC Boards



• 4 spacers, 8 screws and 8 washers

Part No.	Description	1	10	50	100
106551	PC board mounting hardware	**$1.59**	**$1.39**	**$1.29**	**$1.19**

3M Adhesive Rubber Feet

† See page 98 for figures

Part No.	Product No.	Type	Fig.†	Pack	(W" x H")	1	10	50
119618	SJ5012BLK4	Black cylindrical	1	4	.50 x .14	**$.59**	**$.53**	**$.48**
142658	SJ5012BLKC	Black cylindrical	1	100	.50 x .14	**5.95**	**5.35**	**4.79**
142771	SJ5008BLKC	Black tapered square	2	100	.50 x .12	**5.95**	**5.35**	**4.79**
142682	SJ5018BLKC	Black tapered square	3	100	.50 x .23	**8.95**	**7.95**	**6.95**
126981	SJ5023BLK4	Black tapered square	4	4	.81 x .30	**1.95**	**1.75**	**1.59**
142666	SJ5023BLKC	Black tapered square	4	100	.81 x .30	**14.95**	**12.95**	**11.49**

Aluminum & Brass Threaded Standoffs



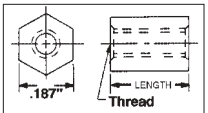
Hex
.187"/.250" Female

† Finish: Iridite (clear)[1] per MIL-C-5541-D; bright tin plate[2]; stainless steel[3]

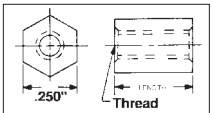
✻ Prepackaged: order in increments of 10, 100 or 1000



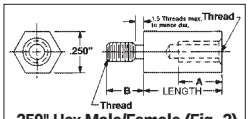
Hex
.250" Male/Female



.187" Hex Female (Fig. 1)



.250" Hex Female (Fig. 2)



.250" Hex Male/Female (Fig. 3)

.187" Hex Female

4-40 Thread (Fig. 1) .187" Hex

Part Number	Metal†	Hex Length	Pricing 1	10	100	1000
175636	Brass[2]	.187"	✻	$.15	$.13	$.12
102795	Brass[2]	.240"	✻	.21	.15	.10
133612	Alum[1]	.250"	✻	.20	.14	.08
133639	Alum[1]	.500"	✻	.22	.18	.11
139791	Alum[1]	.562"	✻	.18	.15	.13
133647	Alum[1]	.625"	✻	.14	.13	.11
133655	Alum[1]	.750"	✻	.39	.24	.15
139184	Alum[1]	1.000"	.39	.32	.27	.18

.250" Hex Female

4-40 Thread (Fig. 2) .250" Hex

Part Number	Metal†	Hex Length	Pricing 1	10	100	1000
139192	Alum[1]	.250"	✻	$.19	$.14	$.08
77500	Alum[1]	.375"	✻	.20	.15	.09
134762	Alum[1]	.437"	✻	.21	.18	.15
108370	Alum[1]	.500"	✻	.24	.18	.10
77518	Alum[1]	.625"	.41	.35	.21	.13
133604	Alum[1]	.750"	.41	.35	.21	.13
139205	Alum[1]	1.000"	.41	.35	.21	.13

.250" Hex Female

SALE

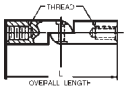
6-32 Thread (Fig. 2) .250" Hex

Part Number	Metal†	Hex Length	Pricing 1	10	100	1000
77534	Alum[1]	.250"	✻	$.22	$.14	$.08
133591	Alum[1]	.375"	✻	.22	.15	.09
77542	Alum[1]	.500"	✻	.25	.17	.10
77551	Alum[1]	.625"	✻	.25	.19	.11
77569	Alum[1]	.750"	✻	.28	.21	.13
77577	Alum[1]	1.000"	.39	.34	.29	.17
143407	Alum[1]	1.500"	.59	.49	.39	.34
143440	Alum[1]	1.750"	.59	.47	.38	.33

.250" Round Hinged

6-32 Thread (both ends)
Female/Female

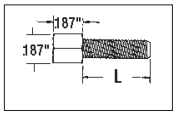




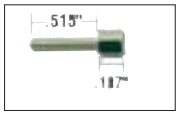
Part Number	Metal†	Overall Length	Pricing 1	10	100
143520	Brass[2]	.750"	$.19	$.17	$.15

.187 Hex Male/Female

4-40 x .187" Jack Screws and Hex Nut



169931/102816/172603



108986

Part No.	Description (Brass[3])	1	10	100	1000
169931	.275"L jack screws	✻	$.15	$.13	$.11
172603	.315"L jack screws	✻	.16	.13	.11
102816	.435"L jack screws	.49	.46	.41	.37
108986	.515"L jack screws	.49	.46	.41	.37

.250" Hex Male/Female

SALE

4-40 Thread (Fig. 3) (Thread A: 0.250"; B: 0.187")

Part Number	Metal†	Hex Length	Pricing 1	10	100	1000
77585	Alum[1]	.250"	✻	$.28	$.19	$.10
77593	Alum[1]	.375"	✻	.28	.22	.11
111755	Alum[1]	.500"	✻	.37	.29	.16
175628	Steel[3]	.580"	✻	.19	.14	.10
139213	Alum[1]	.625"	✻	.35	.30	.17
139221	Alum[1]	.750"	✻	.35	.31	.17
139230	Alum[1]	1.00"	.44	.36	.29	.24
128565	Alum[1]	1.25"	.52	.47	.35	.30
166545	Alum[1]	1.50"	.79	.63	.47	.33

.250" Hex Male/Female

6-32 Thread (Fig. 3) (Thread A: 0.375"; B: 0.250")

Part Number	Metal†	Hex Length	Pricing 1	10	100	1000
133541	Alum[1]	.250"	✻	$.29	$.21	$.18
133567	Alum[1]	.375"	✻	.29	.22	.12
77606	Alum[1]	.500"	✻	.29	.22	.12
77622	Alum[1]	.750"	✻	.30	.27	.15
77649	Alum[1]	1.000"	✻	.34	.29	.17

.250" Hex Male/Female

SALE

8-32 Thread (Fig. 3) (Thread A: 0.437"; B: .375")

Part Number	Metal†	Hex Length	Pricing 1	1	10	100
143511	Alum[1]	.500"	✻	$.15	$.14	$.13

Aluminum Instrumentation Knobs

(1/8" and 1/4" Shaft Diameters)

Includes: Set screw for secure attachment

138384: • Coarse surface for sensitive control



162481 Fig. 1



138384 Fig. 2



162499 Fig. 3



138481 Fig. 4

Part No.	Mfr. Cross Ref. No.	Figure	Description	Shaft Dia. (in.)	Size (in.) Dia.	Height	Pricing 1	10	100
162481	K5-1/4S	1	Silver position pointer	.250	.50	.56	$.99	$.89	$.79
138384	KD500G	2	Silver position pointer	.125	.50	.63	1.39	1.25	.99
162499	K5-1/4B	3	White position pointer	.250	.50	.56	1.55	1.39	1.07
138481	KN031	4	Black position pointer	.250	.61	.65	1.25	1.09	.89
138501	KN032	4	Black position pointer	.250	.87	.75	1.49	1.25	1.09
138510	KN033	4	Black position pointer	.250	1.18	.87	2.49	2.24	1.95

SAE Hardware

- Zinc-plated steel



Prepackaged: please order in increments of 100 or 1000

Slotted Pan Head Machine Screws

Part Number	Screw Size	Thread	Length (inches)	100 piece minimum 100	1000
38172	2-56	Std	.25	$.04	$.027
40951	4-40	Std	.25	.018	.009
40969	4-40	Std	.375	.018	.015
106809	4-40	Std	.50	.018	.014
106542	6-32	Std	.25	.018	.016
42446	6-32	Std	.375	.018	.016
42438	6-32	Std	.50	.03	.018
106796	8-32	Std	.50	.027	.024

Hex Nuts

38164	2-56	Std	.183	$.027	$.02
40942	4-40	Std	.243	.018	.009
42420	6-32	Std	.306	.023	.014
51553	8-32	Std	.334	.027	.02

Flat Washers

106825	4	.281	$.024	$.018
106833	6	.373	.035	.018
106841	8	.377	.04	.018

Internal Tooth Lock Washers

106850	4	.258	$.015	$.012
106868	6	.277	.015	.012
106876	8	.323	.017	.015

Split Lock Washers

106788	2	.161	$.035	$.022
40977	4	.205	.025	.018
42462	6	.240	.018	.009
51609	8	.279	.04	.025

We'll match the advertised price of any like product.

Jameco's Low-Price Guarantee

It's that simple!

Instrumentation Knobs

(1/4" Shaft Diameters)



102787



104176



202286

- Fits 0.25" shafts

102787/104176/202286:

- Brass insert and set screw for strength and durability
- Compatible with all rotary switches



136240/138392

136240: • Used with 1/2-watt and 2-watt linear taper potentiometers, pg 22 & 23

138392: • Brass insert, dual set screws
• Black knob with inset chrome top

SALE

Part No.	Mfr. Cross Ref. No.	Size	1	10	100
102787	KN141	1.25"L x .54"H	$.64	$.41	$.39
104176	KN143	.75"D x .49"H	.79	.68	.56
202286	K14SM	.80"D x .60"H	.79	.69	.64
136240	KN145	.54"D x .52"H	.65	.55	.49
138392	PKG90B	.85"D x .56"H	.79	.59	.54

Part Number Color Code: New Sale Refurbished Closeout

PCB Standoff Mounting Hardware



28337 129251 148056 156831

- Snap "on" • Nylon

28337: 1.2"L x 0.6"W for 0.2" holes
129251: 0.9"L x 0.4"Dia. for 0.2"/0.3" holes
148056: 0.8"L x 0.5"W for 0.1"/0.2" holes
156831: 0.68"L x 0.32"Dia for 0.140" holes
157374: Rivet and Spreader: Size: (rivet) 0.3"L; (spreader): 0.25" x 0.117" Dia.



157374 Spreader Rivet

SALE

✳ **Please order in increments of 10, 100 or 1000**

Part No.	Mfr. Cross Ref. No.	1	10	100	1000
28337	PCST	✳	$.15	$.087	$.05
129251	PCST2	✳	.18	.11	.075
148056	PCST3	✳	.09	.075	.038
156831	KCS10	✳	.12	.10	.063
157374	SR355	✳	.022	.02	.018

Plastic DIP IC Storage Tubes and Rubber Rail Stops

29516: Thin tube (rail) fits 8, 14, 16, 18, 20 and 22-pin integrated circuits. Length: 23.75"
29524: Wide tube (rail) fits 24, 28, 32, 40 and 48-pin integrated circuits. Length: 20"
29583: Rubber stops used to plug plastic rail ends

SALE



ICs not included

29524 29583

✳ **Prepackaged: please order in increments of 10 or 100**

Part No.	Mfr. Cross Ref.	Description	1	10	100
29516	RIC20	Thin rail	$.59	$.40	$.29
29524	RIC220	Wide rail	.35	.20	.12
29583	RRS	Rubber stop ... ✳		.07	.06



Opening an account is easy!!

Call 1-800-831-4242 for details today

Corporate Customers

Plastic Fliptop Box

Double-Sided Box

- Unique double-sided design allows box to be opened from both top and bottom
- Size: 6.5"L x 4.0"W x 1.5"H



Part No.	Description	1	10	100
148865	Double sided box	$2.59	$2.29	$1.95

Plastic Fliptop Case for SMDs

128 Compartments for Surface Mount Components

- 8 rows x 16 columns grid
- Fliptop openings on each bin
- Color: gray
- Padded cover locks bins closed
- Perfect match to store P/N 156881 SMD resistor assortment, pg 20
- Size: 11.0"L x 8.3"W x 1.7"Thick
- Weight: 1.4 lbs.





Includes: Labels for each bin

Part No.	Description	1	10
164267	SMD fliptop case	$44.95	$39.95

Plastic Jar

- Ideal for storing small items such as nuts, bolts, screws, ICs, sockets, etc.
- Clear plastic jar with white lid
- Size: 2.3"Dia. x 2.4"H

SALE



Part No.	Description	1	10	100	1000
179952	Plastic jar	$.35	$.29	$.26	$.23

Component Kits

Kits include the Most Popular Components and a Cabinet with extra drawers for your Customized Expansion



See pages 64 - 65

Component Cabinet



81701



Drawer (85454) Divider (85446)

- Drawer can be divided into 4 sections (clear)
- Wall mountable cabinet (ABS black)
- Cabinet size: 6.0"D x 15"W x 7.9"H • Wt.: 4.7 lbs.
- Drawer size: 5.5"L x 2.7"W x 1.5"H
- Divider size: 2.4"L x 1.1"H

Includes: 20 clear plastic drawers, 20 dividers and 30 adhesive I.D. labels

✳ **Prepackaged: please order in increments of 10 or 100**

Part No.	Description	1	10	50
81701	Component cabinet	$15.95	$13.95	$12.49
85454	Drawer for cabinet	.39	.35	.29
85446	Divider for drawer ..... ✳		.19	.17

Plastic Fliptop Boxes

- Clear plastic box with a clear plastic lid and removable dividers
- **100255:** Size: 8.4"L x 4.5"W x 1.4"H
- 18 compartments (1.4" x 1.5" each)
- **148902:** Size: 10.2"L x 4.7"W x 1.6"H
- 12 compartments (1.7" x 2.3" each)



100255

Part No.	Description	1	10	100
100255	18 compartments.....	$2.25	$1.95	$1.75
148902	18 compartments.....	3.95	3.49	2.95

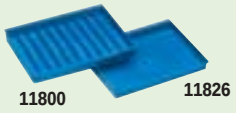
Bug Boxes



- Anti-static plastic
- Fits in bug cage (P/N 11332, below)
- **11341:** stores sixty 8-pin or thirty 16-pin DIPs
- **11375:** Designed to store all types of components
- Box size: 4.9"L x 3.3"W x 0.6"H

Part No.	Description	1	10	100
11341	30 compartments	$3.95	$3.49	$3.15
11375	3 compartments/6 vertical & 6 horizontal dividers.....	4.49	3.95	3.49

Bug Trays



- Fits in bug cage (P/N 11332, below)
- **11826 Open:** 1 compartment 4.6"L x 3.2"W x 0.4"H
- **11800 Divided:** 10 compartments 3.2"L x 0.4"W x 0.4"H ea.
- Tray size: 4.8"L x 3.6"W x 0.5"H

Part No.	Description	1	10	100
11826	Open bug tray	$2.85	$2.40	$2.15
11800	Divided bug tray	3.45	3.10	2.79

Bug Cage

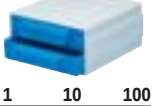


Bug boxes not included

- Holds bug boxes or trays
- Modular and interlocking
- Color: blue • Weight: 0.7 lbs.
- Case size: 5.0"L x 3.9"W x 5.1"H

Part No.	Description	1	10	100
11332	Bug cage	$7.95	$7.15	$6.39

Stackable Drawers



- Case size: 4.5"L x 4.4"W x 2.3"H
- Drawer size: 4.4"L x 4.0"W x 0.9"H
- Color: blue/white

Part No.	Description	1	10	100
11906	Case/drawers	$3.95	$3.49	$3.19

3M Adhesive Rubber Feet

These are perfect for project boxes, providing a non-slip, non-scratch surface.

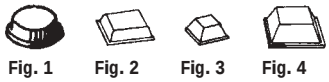


Fig. 1 Fig. 2 Fig. 3 Fig. 4



126981

119618

Part No.	Product No.	Type	Fig.	Pack	Dimensions (W" x H")	1	10	50
119618	SJ5012BLK4	Black cylindrical	1	4	.50 x .14	$.59	$.53	$.48
142658	SJ5012BLKC	Black cylindrical	1	100	.50 x .14	5.95	5.35	4.79
142771	SJ5008BLKC	Black tapered square	2	100	.50 x .12	5.95	5.35	4.79
142682	SJ5018BLKC	Black tapered square	3	100	.50 x .23	8.95	7.95	6.95
126981	SJ5023BLK4	Black tapered square	4	4	.81 x .30	1.95	1.75	1.59
142666	SJ5023BLKC	Black tapered square	4	100	.81 x .30	14.95	12.95	11.49

Full-Range Replacement Speakers

These full-range speakers are perfect replacements for TVs, stereos, and computer systems.

- Full-range coaxial speakers provide extended frequency response and can handle higher-powered amplifiers
- Dual-cone speakers provide richer bass tones and crisper high tones
- Two-way speakers provide extended frequency response with both a tweeter and woofer

196402: shielded magnet prevents signal distortion of TVs, monitors, and CTRs.

Part No.	Mfr. Cross Ref. No.	Size	Type	Shape	Freq. Range	Magnet Wt. (oz.)	RMS Watts	Pricing 1	Pricing 10
197026	4030	4"	Full range	square	100-15kHz	2	5	$7.95	$7.19
196402	480P039-1	4"	Full range shielded	square	120-10kHz	6	10	6.49	5.85
197042	5030	5"	Full range	square	135-15kHz	3	5	7.95	7.19
197069	5412PX	5.25"	Full range coaxial	square	70-20kHz	10	30	15.95	14.39
197077	6030W	6"	Full range dual cone	round	70-15kHz	3	8	10.95	9.85
197085	8010HC	8"	Full range dual cone	round	60-16.5kHz	10	15	16.95	15.39
197034	410CXB	4"	Full range two way	square	70-18kHz	10	30	14.95	13.45
197093	820CXB	8"	Full range two way	round	50-18kHz	10	35	19.95	17.95


196402


197077


197085


197034

Microphones and Microphone Cartridges

Headset with Microphone

Headphones:

- Frequency range: 20Hz to 18kHz
- Impedance: 320W
- Max. power input: 100Ω
- Sensitivity: 96dB @ 1kHz

Microphone:

- Frequency range: 50Hz to 12.5kHz
- Output impedance: <2kΩ



Part No.	Description	1	10	25
190588	Headphones w/ mic.	$4.29	$3.75	$3.29

VHF High-Band Wireless Microphones

The perfect microphone for use with portable PA systems, video recording, and stage use. There is no cord to restrict your movements while providing clear crisp sound.

- T.H.D. (total harmonic distortion): less than 0.5% for crystal-clear sound
- Frequency stability: ±0.005% with Quartz controlled
- Maximum deviation range: ±15kHz with limiting compressor • Transmission range: 300m
- Carrier frequency range: 100Hz to 15kHz • S/N ratio: over 180dB @ 15kHz deviation


198248


198221

Includes: 0.25" mono jack patch cable, 9V battery and power supply

Part No.	Mfr. Cross Ref. No.	Description	Wt. (lbs.)	1	5
198248	WR101R	Handheld wireless microphone	2.1	$119.95	$107.95
198221	WR202H	Wireless microphone with clip-on headset	2.3	119.95	107.95

COBY® Omnidirectional Microphone Headset

- Frequency range: 20Hz to 20kHz (headset); 50Hz to 16kHz (microphone)
- Impedance: 32Ω
- Maximum power: 100mW
- Sensitivity: 98dB (headset); -62dB (microphone)
- Frequency range: 20Hz to 20kHz (headset); 50Hz to 16kHz (microphone)
- Swivel microphone arm pivot • 6' cord
- Flexible microphone arm • Two 1/8" phone jacks



Part No.	Description	1	10	25
153875	Microphone headset	$10.95	$9.95	$8.95

Telephone Headset

A condenser microphone with adjustable gooseneck boom. Swinging earpiece allows headset to be worn on either ear.

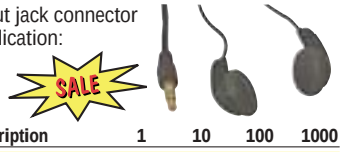
- Connector: 3.5mm male stereo plug
- Gooseneck length: 4.9"
- Compatible with Motorola cell phones
- Cord length: 4'3" • Color: beige



Part No.	Description	1	10	25
189923	Telephone headset ..	$3.86	$3.47	$3.12

In-Ear Stereo Headphones

- 3.5mm input jack connector
- Typical application: CD player
- Color: gray
- 4' Long



Part No.	Description	1	10	100	1000
191880	Headphones	$1.95	$1.59	$1.19	$.79

See page 160 for our complete selection of headsets and microphones.

Omnidirectional Electret Condenser Microphone Cartridges

Applications:

- Tape recorders, intercoms, hearing aids, telephone and answering devices, sonic controlled toys and sensors
- Modems for computers
- Used for recording, testing, and monitoring


189958/136573


116505


160979


196488



140986

Part No.	Type	Sensitivity	Impedance	Frequency (Hz)	Max. Op. Volt. (VDC)	Stand Op. Volt. (VDC)	Current (Max.)	Sensitivity Reduction	S/N Ratio	Terminals	Size (H x Dia.)	Pricing 1	Pricing 10	Pricing 100	Pricing 1000
189958	WM-034B	-38 ±3dB	>2.2kΩ	20-16,000	10V	4.5V	0.8mA	-3dB @ 3V	>60dB	PC pin leads	.27" x .38"	$.75	$.59	$.45	$.32
116505	WM-54PC	-44 ±2dB	>2.2kΩ	20-16,000	10V	2.5V	0.6mA	-3dB @ 2V	>60dB	PC pin leads	.20" x .38"	.75	.67	.59	.48
160979	WM-64PKT	-44 ±3dB	>2.2kΩ	20-16,000	10V	2.0V	0.5mA	-3dB @ 1.5V	>58dB	PC pin leads	.10" x .24"	.79	.71	.64	.57
136573	WM-60PC	-54 ±2dB	>2.2kΩ	20-12,000	12V	4.5V	0.5mA	-3dB @ 3V	>40dB	PC pin leads	.30" x .38"	.53	.48	.43	.39
196488	JL-061C	-58 0dB	2kΩ	20-20,000	10V	2.0V	0.04mA	-3dB @ 1.5V	>55dB	Lead wires	.10" x .24"	1.25	1.15	.99	.89
140986	CRM919	-64 ±3dB	1kΩ ±30%	20-10,000	12V	3.0V	0.8mA	-3dB @ 3V	>40dB	Solder pad	.90" x .39"	1.59	1.43	1.29	1.15

30-Day Money-Back Guarantee

If you're not completely satisfied, we'll take it back! Details on page 181

Part Number Color Code
New Sale Refurbished Closeout

Round Ferrite Speakers

SALE

For speaker wire, see page 88

• Pre-tinned speaker lugs • Large magnet • Anodized metal surfaces • Braided copper voice coil leads • Paper diaphragm

Part Number	Mfr. Cross Ref. No.	Dimensions (Dia." x D")	Input Nom (W)	Input Max (W)	Impedance (Ω)	Output SPL (dB)	Frequency Range (Hz)	Magnet Size (Dia." x H")	Pricing 1	Pricing 10	Pricing 100
135589	FE200	2.0 x 0.7	0.2	0.4	8	83	420 – 5000	1.3 x 0.4	$1.69	$1.45	$.99
10840	FE201	2.2 x 0.7	0.2	0.4	8	88	400 – 4500	1.3 x 0.4	1.79	1.35	.99
177130	57RF07	2.2 x 0.8	0.5	0.9	45	88	500 – 8000	1.6 x 0.5	.49	.43	.39
135714	FE202	2.6 x 0.8	0.3	0.5	8	88	340 – 4000	1.3 x 0.4	.65	.56	.50


135589 side


135589 back

Square Ferrite Speakers

• Pre-tinned speaker lugs • Large magnet • Anodized metal surfaces • Braided copper voice coil leads • Paper diaphragm

Part Number	Mfr. Cross Ref. No.	Dimensions (Dia." x D")	Input Nom (W)	Input Max (W)	Impedance (Ω)	Output SPL (dB)	Frequency Range (Hz)	Magnet Size (Dia." x H")	Pricing 1	Pricing 10	Pricing 100
135693	FEB200	2.0 x 0.7	0.2	0.3	8	82	500 – 6000	1.3 x 0.5	$1.59	$1.45	$1.29
31958	FEB216	2.6 x 0.8	0.2	0.4	16	85	330 – 8000	1.3 x 0.5	2.25	1.99	1.79
99995	FEB204	2.6 x 0.9	3.0	4.0	4	95	300 – 14000	1.8 x 0.5	2.19	1.85	1.59
171168	FEB450SP	4.2 x 1.5	1.0	2.0	8	90	300 – 14000	1.8 x 0.6	1.79	1.55	1.39


99995 side


99995 back

Flat-Magnet, Square Piezo Speakers

• Excellent for alarms or other voice uses • Stainless steel diaphragm

Part Number	Mfr. Cross Ref. No.	Dimensions (Dia." x D")	Input Nom (W)	Input Max (W)	Impedance (Ω)	Output SPL (dB)	Frequency Range (Hz)	Magnet Size (Dia." x H")	Pricing 1	Pricing 10	Pricing 100
34024	AZ30S	1.2 x 0.2	0.4	0.8	8	70	1300-8000	1.2 x 0.1	$1.69	$1.52	$1.35
76030	AZ40S	1.6 x 0.2	0.4	0.8	8	70	600-6000	1.6 x 0.1	1.95	1.75	1.49


34024 side


34024 back

Alnico Speakers

SALE

• For computer case use • Paper diaphragm • Wide frequency response • Pre-tinned solder lugs
• Large magnet • Impedance: 8Ω * P/N 189801: 10" lead wire

Part Number	Mfr. Cross Ref. No.	Fig.	Dimensions (Dia." x D")	Input Nom (W)	Input Max (W)	Output SPL (dB)	Frequency Range (Hz)	Magnet Size (Dia." x H")	Pricing 1	Pricing 10	Pricing 100
88410	A0200	1	2.0 x 0.8	0.2	0.4	87	430 – 4500	0.5 x 0.4	$1.75	$1.49	$1.25
135765	A0201C	1	2.2 x 0.8	0.3	0.5	87	400 – 4000	0.5 x 0.4	1.59	1.19	.79
189801	SP05W*	1	2.2 x 0.8	0.3	0.5	87	400 – 4000	0.9 x 0.5	.44	.39	.35
185851	RF0305	1	3.0 x 0.9	0.3	0.5	87	400 – 4000	1.2 x 0.4	.49	.43	.39
111587	B0102	2	1.7 x 0.6	0.1	0.3	83	500 – 5500	0.5 x 0.4	2.25	1.99	1.55
135781	B0200	2	2.0 x 0.8	0.2	0.4	80	430 – 4000	0.5 x 0.4	.99	.94	.89
135811	A1527C02	3	1.6 x 2.8 x 1.2	2.0	5.0	82	450 – 20000	0.5 x 0.5	3.19	2.89	2.59

Fig. 1





Fig. 2





Fig. 3


Side


Back

Samarium Cobalt Low Profile Speaker

• Round frame • Anodized metal surfaces • Ultra thin • Solder tabs • Paper diaphragm

Part Number	Mfr. Cross Ref. No.	Dimensions (Dia." x D")	Input Nom (W)	Input Max (W)	Impedance (Ω)	Output SPL (dB)	Frequency Range (Hz)	Magnet Size (Dia." x H")	Pricing 1	Pricing 10	Pricing 100
135626	MSC299	2.0 x 0.3	0.3	0.5	8	85	550 – 5000	0.5 x 0.6	$2.95	$2.49	$2.15


Side


Back

1.2" (30mm) PCB Mountable Speaker

• Round frame design • Ideal for PC board mounting • Mylar diaphragm • Solder leads

Part Number	Mfr. Cross Ref. No.	Dimensions (Dia." x D")	Input Nom (W)	Input Max (W)	Impedance (Ω)	Output SPL (dB)	Frequency Range (Hz)	Pin Spacing (mm)	Pricing 1	Pricing 10	Pricing 100
135722	PCM41S	1.2 x 0.5	0.150	0.200	8	82	700 – 5000	15.0	$2.25	$1.99	$1.85



Communications Speaker with Magnetic Mount

- Frequency range: 200 - 18kHz
- Maximum input: 8 watts
- Impedance: 8Ω
- Black ABS case
- Size: 3.0"W x 2.0"D x 2.8"H
- Weight: 0.5 lbs.



Includes: 3' cord with 3.5mm male plug

Part No.	Description	1	10
102031	Compact speaker	$7.95	$7.15

See the yellow highlighted items.

Special Jameco Values!

Details on page 5

Audio Stereo Adapter

1/8" Female to 1/4" Male

SALE

- Headphone stereo adapter
- ⅛" female to ¼" male (stereo)
- Length: 2.3"

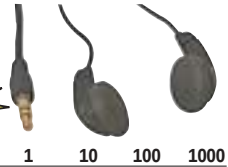


Part No.	Description	1	10	100
196082	Audio adapter	$1.19	$.89	$.62

In-Ear Stereo Headphones

- 3.5mm input jack connector
- Typical application: CD player
- Color: gray
- 4' Long

SALE



Part No.	Description	1	10	100	1000
191880	Headphones	$1.95	$1.59	$1.19	$.79

RCA Audio/Video Cables


139037


177527


190617

- Video/audio applications • See page 126 for jacks
- Color: black except as shown *184882: Low loss

Part No.	Description	1	10	100
196808	5" Y: 1/8" F to 2 RCA M ..	$1.95	$1.49	$.99
183302	4' 2 males (red/black)	2.95	2.65	2.35
139037	5" Y: 1/8" M to 2 RCA M ...	2.95	2.12	1.56
177527	6' 3 males to 3 males	4.95	4.49	3.95
184882	6' 3 males to 3 males	3.95	2.95	2.09
183311	4' male to male	.99	.89	.79
206973	4' male to male (yellow)	.99	.89	.79
106374	6' male to male	1.25	.99	.79
190617	10' male to male	1.49	1.15	.99
29348	10' male to male (yellow)	1.69	1.49	1.25

Buzzers and Sonic Transducers

NEW

Magnetic Transducer

• Applied voltage: 1/2 duty, square wave

Part Number	Fig.	Operating Volt. (Vp-p/mA)	Voltage Range (Vp-p)	Frequency (Hz)	Sound (dB)	Dimensions	Pricing 1	10	100	1000
138721	1	1.5/10	1 – 2	2048	80	.32"H x .46"Dia.	$1.09	$.93	$.73	$.69
207917	2	1.5/30	1 – 2	2048	75	.22"H x .47"Dia.	.99	.84	.69	.59
207925	3	1.5/70	1 – 2	2048	80	.50"L x .50"W x .30"H	1.09	.89	.75	.69
207941	4	1.5/80	1 – 2	2731	80	.28"H x .38"Dia.	1.09	.89	.75	.69
207968	5	1.5/80	1 – 2	2731	80	.22"H x .35"Dia.	1.09	.89	.75	.69
207909	1	3.6/40	1 – 4	1980	70	.22"H x .47"Dia.	.99	.84	.69	.59
138739	1	5/40	3 – 8	2400	85	.35"H x .46"Dia.	1.19	.99	.81	.75
106500	1	5/40	3 – 8	2400	85	.40"H x .48"Dia.	1.19	.99	.79	.74
207933	4	5/100	4 – 8	3100	85	.28"H x .38"Dia.	1.09	.89	.75	.69
207950	5	5/100	4 – 8	3100	85	.22"H x .35"Dia.	1.09	.89	.75	.69

Magnetic Buzzer

Part Number	Fig.	Operating Volt. (VDC/mA)	Voltage Range (VDC)	Frequency (Hz)	Sound (dB)	Dimensions	Pricing 1	10	100	1000
207984	6	1.5/30	1.25 – 2	2300	75	.47"H x .38"Dia.	$2.49	$2.19	$1.99	$1.69
76064	6	5/30	4 – 7	2300	85	.35"H x .46"Dia.	2.79	2.49	2.25	1.95
207976	6	12/30	8 – 15	2300	85	.47"H x .38"Dia.	2.49	2.19	1.99	1.69

Piezo Buzzer

* P/N 123537 & 207888: dual tone

Part Number	Fig.	Operating Volt. (Vp-p/mA)	Voltage Range (Vp-p)	Frequency (Hz)	Sound (dB)	Dimensions	Pricing 1	10	100	1000
206295	6	12/6	3 – 20	2900	95	.63"H x .92"Dia.	$2.49	$2.25	$1.95	$1.75
196357	6	12/5.8	3 – 16	4000	86	.30"H x .54"Dia.	1.95	1.59	1.19	.89
138712	6	12/7	3 – 16	4000	80	.30"H x .54"Dia.	1.95	1.59	1.19	.89
207896	7	12/120	6 – 15	2800	105	3.4"L x 2.2"W x 1.3"H	8.95	7.95	6.95	6.25
207888*	7	12/120	9 – 15	3100	105	3.4"L x 2.2"W x 1.3"H	8.95	7.95	6.95	6.25
207992	8	12/250	6 – 16	3500	105	2.3"L x 1.8"W x 1.6"H	7.95	6.95	6.25	5.59
32601	9	24/15	1 – 28	2900	95	1.4"H x 1.7"Dia.	4.95	4.45	3.95	3.59
123537*	9	24/20	4 – 28	2900	80	1.4"H x 1.7"Dia.	4.19	3.79	3.39	2.95
76021	10	24/20	1.5 – 28	3200	95	1.0"H x 1.1"Dia.	4.25	3.79	3.49	3.09

Mechanical/ElectroMechanical Buzzer

24871	11	9/30	6 – 12	400	75	1.3"L x 0.7"W x 0.6"H	$2.49	$1.99	$1.79	$1.79
105822	12	9/220	—	500	80	1.3"H x 2.0"Dia.	1.49	1.35	1.19	.79
140695	11	12/25	9 – 15	400	75	1.3"L x 0.7"W x 0.6"H	1.79	1.59	1.49	1.29



110VAC Piezo Buzzer



- Sound pressure level: 90dB
- Output tone: pulse • 6" lead wires
- Operating range: 60-150VAC
- Current drain: 20mA
- Fits 1.125" diameter opening
- Size: 1.3"H x 1.7"Dia.

Includes: Mounting nut

Part No.	Product No.	1	10	100
184743	FM-110A-903AL	$3.19	$2.99	$2.69

Solar Products

Photovoltaic Solar Panel

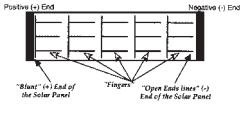


- Output connection: conductive film requiring pressure contact or use of 3M conductive epoxy
- Rated 9.5VDC open circuit; 9VDC @ 0.06A in direct sunlight
- Size: 6"L x 6"W x 0.1"T

Part No.	Description	1	10	50
141751	0.5W solar panel	$7.95	$5.95	$5.15

Flexible Thin-Film Solar Panel

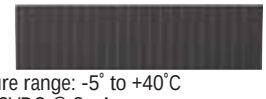
IOWA THIN FILM TECHNOLOGIES



- For recharging NiCad, Nickel Metal Hydride and Gel-cell batteries
- Size: 4.5"L x 1.46"W

Part No.	Output	1	10	100
171061	3VDC @ 40-50mA ...	$9.19	$8.29	$7.49

Miniature Glass Solar Panel



- Open circuit voltage: 16.5VDC in full sunlight
- Operating temperature range: -5˚ to +40˚C
- Operating voltage: 12VDC @ 3mA
- Size: 3.6"L x 1.0"W

Part No.	Description	1	10	50
171985	Glass solar panel ...	$7.89	$7.19	$6.39

OWI® Deluxe Solar Power Car Kit



This deluxe aerodynamic solar powered car is loaded with fun and features.

- Multispeed transmission
- Dual power: powerful 1.4 volt/350mA solar cell or AA battery
- Body can be painted or left clear to view mechanics
- Components can be used to create other projects

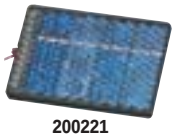
Part No.	Description	Wt. (lbs.)	1	10
147774	Solar car kit	0.7	$39.95	$35.95

velleman Solar Cells



The perfect solar cells for students and experimenters in these rugged cases.

200192



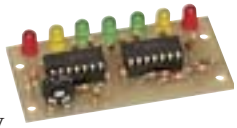
200221

- Connection: lead

200192: 0.5V, 400mA
200205: 0.5V, 800mA
200213: 1V, 200mA
200221: 2V, 200mA

Part No.	Product No.	Size (LxWxThick)	1	10
200192	SOL1	1.8" x 2.8" x 0.2" ..	$3.99	$3.59
200205	SOL2	2.6" x 3.7" x 0.2"	8.99	7.99
200213	SOL3	1.8" x 3.0" x 0.2"	4.99	4.49
200221	SOL4	3.0" x 3.7" x 0.2"	8.99	7.99

DC Voltage Monitor Kit



If battery status is important, you need this kit. It uses 7 LEDs to monitor 12VDC in 1V, 1/2V, or 1/4V steps. Monitor 8V or 5V in 1/4V steps. Great for boats, motor homes, model planes or race car Ni-Cads.

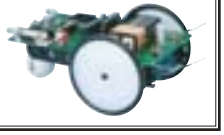
- 46-piece Kit • Beginner level

Part No.	Mfr Cross Ref. No.	Dimensions	1	10
181833	VM-1	2.7"L x 1.3"W	$8.95	$7.95



For a Wide Selection of Electronic Kits

See pages 169 – 180



Part Number Color Code: New Sale Refurbished Closeout

Fume Extractors and Filters

Absorbs noxious lead fumes using activated-carbon filter and a high-efficiency fan

- Operate continuously providing filtered air
- Air flow: 115 CFM
- Compact size allows use on work bench with minimum space
- 120VAC, 60Hz, 22 watt
- On/off power switch
- Aerodynamic hood design for effective removal of solder fumes
- Noise: 49dB fan
- Fuse protected
- Static ground jack
- Removable carbon-impregnated filter
- One-year warranty


168268


120150

168268:
- High carbon plastic case
- Size: 8.5"W x 5.0"D x 8.0"H • Weight: 4.2 lbs.

120150: • Black anodized aluminum case
- Size: 6.4"W x 4.6"D x 7.9"H • Weight: 4.6 lbs.

Includes: Detachable power cord

Part No.	Description	1	10	25
168268	Fume ext. (ESD safe)	**$59.95**	**$53.95**	**$49.95**
120150	Fume extractor	**79.95**	**71.95**	**64.95**
127183	Replace. filters (2/pk) .	**10.95**	**9.95**	**8.95**

Combination 42-Watt Soldering Station and Fume Extractor

- Power consumption: 42W @ 650˚F (soldering iron)
- Adjustable knob for temperature control (temperature range: 250˚ to 430˚C; (500˚ to 800˚F)
- Stability @ idle: ±5˚C (9˚F)
- Maximum air volume: 95/115CFM
- Electronic zero-voltage switching
- LED indicator for pilot light & lighted on-off switch
- Input voltage: 100/120VAC @ 60Hz
- Size: 6.4"W x 7.8"H x 4.7"D • Weight: 5.2 lbs.

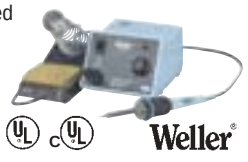


Includes: Soldering iron, soldering holder, sponge, carbon activated filter, power cord and manual

Part No.	Product No.	1	10	25
183169	456DLX	**$129.95**	**$116.95**	**$105.29**

40-Watt Analog Soldering Station

- Electronically controlled station: temperature accuracy calibrated to ±9˚F; temperature stability to ±10˚F
- ESD safe to protect sensitive components
- Irons fitted with non-burnable silicon rubber cord – prevents cord from being compromised for your protection • Use ET series tips (right)
- Quick disconnect plug for soldering iron and lighted on/off switch
- 120VAC @ 60Hz input
- Size: 5.9"L x 4.5"W x 3.6"H • Weight: 4.5 lbs.



Includes: 40W soldering iron and ETA tip

Part No.	Prod. No.	Description	1	10
192006	EC10021	Solder station ..	**$239.95**	**$215.95**

Weller® 40-Watt Soldering Station

- Lighted on/off switch
- Adjustable power from 5 watts to 40 watts
- 40 watt,120V @ 60Hz
- Temperature is electronically controlled from 350° to 850°F
- Size: 5.5"L x 4.5"W x 3.5"H • Weight: 1.9 lbs.

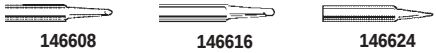


Includes: ST3 1/8" screwdriver tip, soldering station and manual

Part No.	Product No.	Description	1	10
146595	WLC100	Soldering station	**$49.95**	**$44.95**

Weller® Soldering Tips

Replacement Tips for WLC100, WP25 & WP23


146608 146616 146624

Part No.	Product No.	Description	1	10
146608	ST1	Screwdrvr tip 1/16"	**$5.95**	**$5.35**
146616	ST3	Screwdrvr tip 1/8"	**5.95**	**5.35**
192129	ST4	Scrwdrvr tip .187"	**5.25**	**4.75**
192137	ST5	Flat tip .031"	**5.25**	**4.75**
192145	ST6	Scrwdrvr tip .031"	**5.25**	**4.75**
146624	ST7	Conical tip 1/32"	**5.95**	**4.95**

40-Watt Digital Soldering Station

- Microprocessor controller for accuracy and dependability
- Digital LED display allows you to read temp. setting and actual tip temp. – accuracy for most demanding applications
- Temp. accuracy: calibrated to ±9°F
- Temp. stability: ±10°F
- ESD safe to protect sensitive components
- Quick disconnect plug for soldering iron and lighted on/off switch • Weight: 4.5 lbs.
- 120VAC @ 60Hz input • Size: 5.9"L x 4.5"W x 3.6"H



Includes: EC1201A 40W soldering iron

Part No.	Prod. No.	Description	1	10
191994	EC2002M1	Solder Station	**$339.95**	**$305.95**

42-Watt Controlled Output Soldering Station

- Transformer powered soldering station complete with macro style, low voltage, temp. controlled soldering iron
- Closed loop method of controlling max. tip temp. – for protection of temp. sensitive components
- Power unit housing features impact resistant plastic for durability • Size: 5.9"L x 4.5"W x 3.6"H
- Quick disconnect plug for soldering iron and lighted on/off switch • Uses PT series tips
- Separate conductor grounds iron tip and terminates third pin of power cord • Weight: 4.0 lbs.
- 120VAC @ 60Hz input



Includes: Soldering iron and PTA7 tip (below)

Part No.	Prod. No.	Description	1	10
170552	WTCPT	Solder station ...	**$149.95**	**$134.95**
192161	TC201T	Replac. iron	**68.95**	**62.05**
192170	PTA6	.062" screwdriver tip (600˚F)	**6.95**	**6.25**
192188	PTA7	.062" screwdriver tip (700˚F)	**5.69**	**5.15**
192196	PTA8	.062" screwdriver tip (800˚F)	**5.69**	**5.15**

Weller® 50-Watt Controlled Output Soldering Station

ESD Safe

- 50 watts of controlled power
- Temperature lockout prevents raising of temperature to high levels
- Temperature calibration allows user to reset temperature to match tip styles and sizes
- Quick heat-up and temperature recovery
- Temperature range: 350˚F - 850˚F (177˚C - 454˚C)
- Accuracy within 9˚F (5˚C) • Automatic shut-off
- Size: 5.9"L x 4.5"W x 3.6"H • Weight: 4.2 lbs.

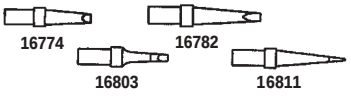


Part No.	Prod. No.	Description	1	10
166879	WES50	Soldering station	**$119.95**	**$109.95**

Weller® Soldering Tips

Replacement Tips for WES50

- Tip leakage: less than 2mV
- Tip to ground resistance: less than 2Ω
- Tips also used with WCC100 station
- Additional tips can be special ordered


16774 16782 16803 16811

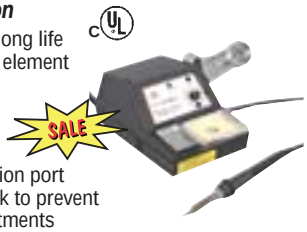


Part No.	Prod. No.	Description	1	10
16774	ETA	Screwdriver 1/16"	**$6.95**	**$6.25**
16782	ETJ	Long screwdriver 1/32"	**6.95**	**6.25**
16803	ETR	Narrow scrwdrvr 1/16"...	**6.95**	**6.25**
16811	ETS	Long conical 1/64"	**6.95**	**6.25**

Temperature Controlled 60-Watt Soldering Station

ESD Safe Station

- High insulation/long life ceramic heating element
- Thermal control adjustable from 300˚F to 850˚F within ±6˚F
- External calibration port
- Temperature lock to prevent unwanted adjustments
- Size: 7.7"L x 5.3"W x 3.8"H • Weight: 4.7 lbs.



Part No.	Product No.	Description	1	10
168719	136ESD	60-watt station	**$79.95**	**$71.95**

Don't worry about backorders. Over 99% of our products are in stock!



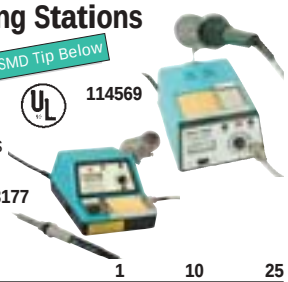
We'll Send It Today!

Just place your order by 6PM EST for same business day shipment

Analog Display Soldering Stations

Maintains a steady temperature using a cartridge heating element, providing a longer life for the solid soldering tip.

SMD Tip Below

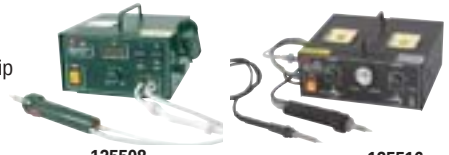


- Electronic temperature control: 300°F to 850°F
- CMOS devices protected against voltage spikes
- Power consumption: 60W
- Weight: 4.1 lbs.
- Size: 4.3"W x 6.0"D x 3.4"H

Includes: One 1/16" tip (P/N 35115 – below)

Part No.	Product No.	Description	1	10	25
114569	168-3C	Analog display station	$94.95	$84.95	$76.95
183177	XY9-60A	Analog display station	99.95	89.95	79.95
134640	SP815	Replacement sponge for P/N 114569	2.99	2.69	2.49
134631	SP715	Replacement sponge for P/N 183177	2.99	2.69	2.49

Desoldering & Soldering/Desoldering Stations



- Simple fine tune feature to select 300–850°F range
- Vacuum pump activated "on demand" using finger tip switch on desolder handle
- CMOS devices protected against voltage spikes
- Replacement sponge for P/N 125516 – see above (P/N 134631)
- One-year warranty

125508: Size: 9.2"L x 7.2"W x 3.6"H; Weight: 13.1 lbs.
Includes: 3/64" conical tip and solder holder

125516: Size: 11"L x 10"W x 4.0"H; Weight: 18.1 lbs.
Includes: 1/32" conical tip, solder holder, tip cleaner and tweezers

Special 5% Bundle Bonus
Complete digital solution for an ISO 9000 Soldering/Desoldering Station –
P/N 125508 & 162456 Sold separately $439.90
Combined: P/N 207263 $407.95

Part No.	Product No.	Description	1	10	25
125508	968	Desoldering station	$309.95	$278.95	$251.95
125516	988	Soldering/desoldering station	409.95	368.95	331.95
207271	TWZ60ESD	SMD tweezer iron w/ .078" tip	69.95	62.95	56.95
207221	D1A60A	Replacement desoldering iron	74.95	67.49	59.95
168583	46-060102	Tip .078" for P/N 207271	11.95	10.79	9.69
168591	46-060115	Tip .590" for P/N 207271	12.95	11.69	10.49

Temperature Controlled 45-Watt Soldering Station

Grounded Soldering Tip



- 500°F to 850°F • Fully grounded
- Insulated ceramic heating element for rapid heat-up and heat recovery • Wt.: 2.5 lbs.
- Heater insulation exceeds 100MΩ
- Zero voltage circuitry eliminating high voltage spike and magnetic field generation • Size: 7.0"L x 4.5"W x 3.5"H

Includes: Manual and 1.2mm diameter conical tip

Part No.	Product No.	Description	1	10	25
156785	379	Soldering station	$69.95	$62.95	$56.95
156814	44-510601	Sharp conical 1/32" tip	4.95	4.49	3.95
156822	44-510604	Chisel conical 1/16" tip	4.95	4.49	3.95
134631	SP715	Replacement sponge for P/N 156785	2.99	2.69	2.49

Digital Display Soldering Station

ESD Safe!

Designed for soldering situations where precise temperature is required for sensitive components.



- Temperature is maintained at ±6°F
- Electronic temperature control from 392° to 878°F
- External calibration port
- CMOS devices protected against voltage spikes
- Power consumption: 60 watts
- Power-on and Heater-on LED indicators
- Size: 5.1"W x 8.0"D x 4.0"H • Weight: 4.8 lbs.

Includes: One 1/16" tip (P/N 35115 – below)

Part No.	Product No.	Description	1	10	25
162456	XY9-60D	Soldering station with ESD	$129.95	$116.95	$104.95
168401	TWZ50ESD	SMD tweezer iron w/ 0.078" tip	79.95	71.95	64.95
168583	46-060102	Tip .078" for P/N 168401	11.95	10.79	9.69
168591	46-060115	Tip .590" for P/N 168401	12.95	11.69	10.49
134631	SP715	Replacement sponge for P/N 162456	2.99	2.69	2.49

CHIPQUIK SMD Removal Kit

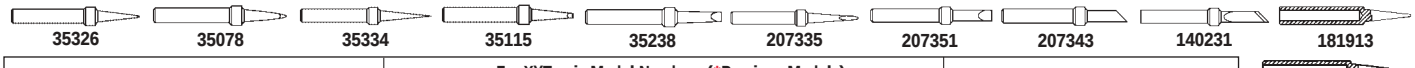


- Quick and easy to use
- Potential damage to printed circuit boards is eliminated
- 2.5' of CHIPQUIK® material removes 1250-1500 SMD pins
- Uses simple equipment and materials for application & clean-up

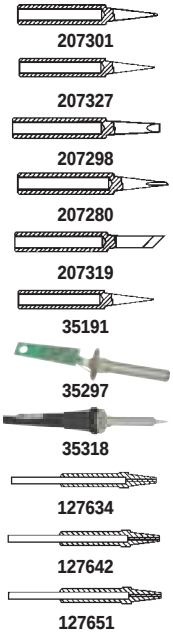
Part No.	Description	1	10
141305	SMD removal kit	$19.95	$18.95

Tips & Replacement Parts For XYTronic Soldering and Desoldering Products

NEW



Part Number	Product Number	Description	136ESD	168*	200CX	379	AESD*/DESD	XY960AI	960D*	968	988	988SDA*	JSI258*	168-3C	2660*	Pricing 1	10	25
35326	XY401	Soldering tip - conical bevel 1/32"		✓	✓		✓					✓	✓	✓		$4.49	$3.95	$3.65
35078	XY402	Soldering tip - semi-chisel 1/32"		✓	✓		✓					✓	✓	✓		4.49	3.95	3.65
35334	XY403	Soldering tip - conical sharp 1/64"		✓	✓		✓					✓	✓	✓		4.49	3.95	3.65
35115	XY404	Soldering tip - conical chisel 1/16"		✓	✓		✓					✓	✓	✓		4.49	3.95	3.65
35238	XY405	Soldering tip - semi-chisel wide 1/8"		✓	✓		✓					✓	✓	✓		4.49	3.95	3.65
207335	XY406	Soldering tip - long conical chisel 3/64"		✓	✓		✓					✓	✓	✓		2.95	2.69	2.39
207351	XY410	Soldering tip - chisel 3/16"		✓	✓		✓					✓	✓	✓		2.95	2.69	2.39
207343	XY411	Soldering tip - wedge 3/16"		✓	✓		✓					✓	✓	✓		2.95	2.69	2.39
140231	XY430	Soldering tip - SMD flat pack 7/32"		✓	✓		✓					✓	✓	✓		8.95	7.95	7.25
181913	XYB01	Soldering tip - conical chisel 1/32"	✓			✓						✓				3.45	3.09	2.78
207301	XYB02	Soldering tip - conical semi-sharp 1/32"	✓			✓						✓				3.95	3.49	2.95
207327	XYB03	Soldering tip - conical sharp 1/64"	✓			✓						✓				3.95	3.49	2.95
207298	XYB05	Soldering tip - semi-wide chisel 1/8"	✓			✓						✓				3.95	3.49	2.95
207280	XYB06	Soldering tip - long conical chisel 3/64"	✓			✓						✓				3.95	3.49	2.95
207319	XYB30	Soldering tip - wedge blade 3/16"	✓			✓						✓				7.95	6.95	5.95
35191	XY25	Soldering tip - conical sharp 1/64"													✓	6.49	5.85	5.25
35297	XY37	Heating element- (nichrome)		✓	✓		✓					✓		✓		20.95	18.95	16.95
35318	XY48	Assembly - 60W w/ nichrome heater		✓	✓		✓					✓		✓		30.95	27.95	24.95
127634	XYD10	Desoldering tip - 1.0mm (.0394")							✓	✓		✓				8.95	7.95	7.25
127642	XYD12	Desoldering tip - 1.2mm (.0472")							✓	✓		✓				8.95	7.95	7.25
127651	XYD15	Desoldering tip - 1.5mm (.0586")							✓	✓		✓				8.95	7.95	7.25



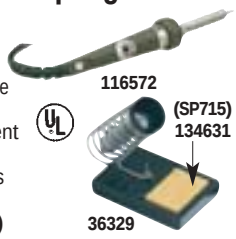
Part Number Color Code: New Sale Refurbished Closeout

16 to 30-Watt Variable Soldering Iron, Stand & Sponge

116572: (JS1258)
- Length: 7.5"

36329: (100S)
- Black anodized steel base – 5.3"L x 3.3"W
- See below for replacement sponge (P/N 134631)
- Fits most soldering irons .85" diameter

Includes: Sponge **(SP715)**



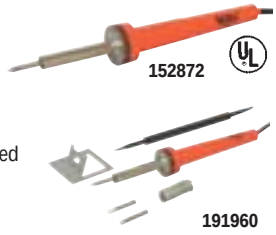
Part No.	Description	1	10	100
116572	Soldering iron	$19.95	$17.95	$15.95
36329	Soldering stand	3.89	3.49	3.09
134631	Sponge (for 100S)	2.99	2.69	2.49

Weller® Light-Duty 23-Watt Soldering Iron & Kit

- Ideal for hobby or electronics kit work
- 1/8" removable tip
- Additional tips can be special ordered
- Length: 8"
- 120VAC @ 60Hz

191960: Includes lighted soldering iron, MT1 (cone shaped), MT2 (screwdriver), MT3 (chisel) 1/8" tips, lead free solder and soldering aid tool • Weight: 2.0 lbs.

189384/191978/191986: 2 pack



Part No.	Description	1	10	25
152872	Iron only (SP23L)	$14.95	$13.49	$11.95
191960	Iron kit (SP23LK)	16.95	15.25	14.95
189384	1/8" cone tip (MT1)	4.95	4.49	3.95
191978	1/8" scrdrvr tip (MT2)	4.95	4.49	3.95
191986	1/8"chisel tip (MT3)	4.95	4.49	3.95

Thermally Balanced 25-Watt Soldering Iron

The XY200GX is a thermally balanced soldering iron for the professional or hobbyist.



- 120VAC; 6' cord • 25-watt power consumption
- Interchangeable tips (pg 103)
- One-year warranty • UL listed • Length: 8.0"

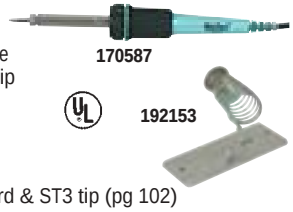
Includes: 1.6mm conical tip

Part No.	Description	1	10	25
129040	25W solder. iron	$12.95	$11.49	$10.49

Weller® Professional 25-Watt & 35-Watt Soldering Irons

- Interchangeable heater elements
- Lightweight handle with cushioned grip
- Quick change knurled collar
- Length: 9"
- 120VAC @ 60Hz

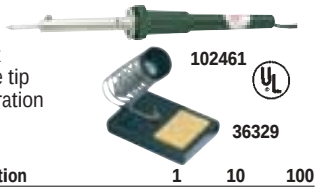
Includes: Power cord & ST3 tip (pg 102)



Part No.	Product No.	Description	1	10
170587	WP25	25W solder iron	$34.95	$31.95
192102	WP35	35W solder iron	39.95	35.95
192153	PH25	Solder iron stand	15.95	14.55

30-Watt Soldering Iron and Stand

- UL approved
- Ideal for precision work
- 1/4" removable tip
- One-hand operation
- Length: 8.3"
- 110-120VAC



Part No.	Description	1	10	100
102461	30W soldering iron	$3.95	$3.49	$3.19
116020	Replacement tips (2)	2.25	1.79	1.25
36329	Soldering stand	3.89	3.49	3.09

Weller® 40-Watt Soldering Iron

- Develops 900˚F / 482˚C of heat
- MT10 1/4" / 10mm diameter replaceable nickel plated copper tip
- Stainless steel barrel
- Length: 8.25"
- Heat & impact resistant handle
- Weight: 0.27 lbs.
- 120VAC @ 50-60Hz



Part No.	Prod. No.	Description	1	10
170561	SP40L	40W solder iron	$17.95	$15.95
188980	MT10	1/4" chisel tip 2 pk	6.49	5.85

Economical 60-Watt High-Performance Soldering Iron

A high-quality soldering iron that is suitable for both professional and do it yourself applications.



- 60W power consumption • Length: 9"
- 120VAC; 6' cord with 3-prong plug

Part No.	Product No.	1	10	25
195223	200PHG	$13.95	$12.49	$12.11

Weller® 100-Watt Soldering Iron

- Uses the Weller® "closed loop" method of controlling maximum tip temperature
- Portable line voltage iron – no base station required
- Temperature controlled by the tip
- Nominal heat-up time with 700˚F tip is 110 seconds
- Length: 6" • Weight: 0.7 lbs.
- 120VAC @ 60Hz input



Includes: CT6F7 (0.375" screwdriver tip; 700˚F)

Part No.	Prod. No.	Description	1	10
192081	W100PG	Solder iron	$62.95	$56.95
192090	CT6F7	.375" scrwdrvr tip	9.95	8.95

SMD Tweezer Iron

- Maximum efficiency ceramic heating elements insures rapid heat-up and instant heat recovery
- Max. temp.: 760˚F
- 120VAC
- Heater insulation exceeds 100MΩ
- Heater power consumption: 35W x 2

Includes: 0.095" tip



Part No.	Description	1	10	25
168410	Tweezer iron	$59.95	$53.95	$48.95
168583	Tip .078"	11.95	10.79	9.69
168591	Tip .590"	12.95	11.69	10.49

WAHL® Cordless Soldering Iron

The #1 choice for field service soldering!

IsoTip® Power Pro Model #7904
- 900˚F tip temperature
- Iron performance equivalent to 25-watt iron
- Solders 200+ joints or up to 30 minutes of continuous soldering
- Recharges in 3–4 hours
- LED indicator light
- One-year warranty
- Weight: 1.1 lbs.
- 120VAC @ 60Hz input

Includes: Soldering iron, recharging stand, Ni-Cad battery pack, and tips



Part No.	Description	1	10
132783	Power Pro cordless iron	$64.95	$58.49

Weller® Cordless Soldering Iron Kit

- Self igniting and instant heat
- Adjustable temperature (25W to 125W)
- Auto switch off
- Visible gas level
- Additional tips can be special ordered
- 2 hours of heat on average tank setting



Includes: soldering tool, hot blower tip, hot knife tip, 2.4mm and 4.8mm double flat tip, cleaning sponge, storage case and instruction manual

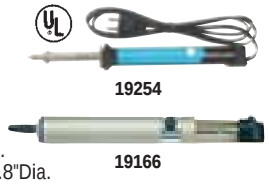
Part No.	Prod. No	Description	1	10
152207	PSI-100K	Tool kit	$79.95	$74.95

Electric and Manual Desolder Pumps

- Easily disassembled for cleaning
- One-hand operation
- Replacement tips available

19254: • UL listed • Size: 10.5"L x1.0"Dia.

19166: Size: 7.8"L x 0.8"Dia.



Part No.	Description	1	10
19254	Electric desolder pump	$26.95	$23.95
19166	Manual desolder pump	4.95	4.49
19262	1 tip for 19254	4.95	4.49
22091	2 tips for 19166	4.49	3.95

Vacuum Pen Tools

NEW

- Picks up components with weight of 1.1 lbs. or less
- ESD safe body

207239: 4 tips and cups

207247: Aluminum body; 6 tips and cups



Part No.	Description	1	10	25
207239	Handivac tool	$14.49	$12.95	$11.75
207247	Pen Vac tool	37.95	34.25	30.49



For SMD Removal Kits see page 118

CHIPQUIK



One-Shot Desoldering Gun

This low maintenance desoldering gun with self-contained vacuum pump is perfect for desoldering through-hole components.



- Power consumption: 60W
- Interchangeable standard tips
- Zero static tip, 3 wire grounded
- Sensitive where CMOS protection is needed
- Quick release stainless solder collector
- Electronic temperature control
- Ergonomic, lightweight design
- 120VAC • One-year warranty
- Gun casing size: 7.0"L x 4.0"W • Weight: 2.2 lbs.

Includes: 1.0mm tip

Part No.	Description	1	10	25
129066	Desolder gun	$99.95	$89.95	$79.95
140214	"Y" replacement tip .	10.95	9.95	8.95
134594	1.0mm replace. tip	8.95	7.95	7.19
134607	1.2mm replace. tip	8.95	7.95	7.19

Weller® Universal 100/140-Watt Soldering Gun Kit

- Trigger selectable power
- 7-piece kit: 8200 model soldering gun, soldering tip, sealing tip, cutting tip, coil of lead free rosin core solder, hex wrench, & case

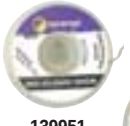


Part No.	Prod. No.	Description	1	10
191951	8200PK	Solder gun kit ...	$35.99	$34.25

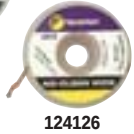
TECHSPRAY 5' No-Clean Desolder Braids

Meets all of the most stringent soldering standards for worldwide application including: MIL-F-142560D Type R, NASA specification NHB5300.4, NPC200-4 and SP-5002.

- Length: 5'



139951



124126

Part No.	Description	1	10	100
139951	.030"W desolder braid	$2.25	$1.95	$1.75
124126	.060"W desolder braid	2.25	1.95	1.75
124118	.075"W desolder braid	2.25	1.95	1.75

5' Desoldering Braids

- Easy to use handy dispenser
- Braided copper with flux



41099

Part No.	Description	1	10	100
41081	.079"W braid (5')	$1.25	$.99	$.79
41099	.098"W braid (5')	1.35	1.09	.95
153461	.120"W braid (5')	1.59	1.39	1.25

Desoldering Wick SALE

No more burnt fingers

- Length: 5'
- Handy dispenser • 0.067" wide
- Pure copper braid • No clean flux formula



Part No.	Description	1	10	25
175986	0.067" braid	$2.49	$1.99	$1.79

300-Watt Solder Pot

Temperature Regulated between 420 – 450˚C

- HI/LO switch selectable for temperature
- 2 conductor power cord; 5' 9" long
- Holds up to 1 bar of P/N 170464 or 176057, pg 106
- Input voltage: 110VAC @ 2.7A; 50-60Hz
- Size: (unit) 4.8"H x 5.5" Dia. (base)
- Size: (tub) 2.4"Dia. x 1.6"D
- Weight: 5.9 lbs. • One-year warranty



Part No.	Description	1	10	25
160303	300W solder pot ..	$59.95	$53.95	$48.95

600-Watt Solder Pot

Temperature Adjustable

- 2-prong power cord (5'5")
- Tin boiler temp.: 0˚C to 500˚C
- Self regulating temperature
- On-off power switch and LED indicator for heat
- Input voltage: 110VAC @ 5.5A
- Holds up to 3 bars of P/N 170464 or 176057, Pg 106
- Size (unit): 3.9"L x 1.6"D
- Size (tub): 6.8"L x 5.5"W x 2.8"H • Weight: 7.4 lbs.



Includes: Skimmer and removable dross tray

Part No.	Description	1	10
172275	600W solder pot	$189.95	$159.95

2000-Watt Solder Pot

- Thermostat control for setting temperature from 50°C to 300°C
- Holds up to 48 bars of P/N 170464 or 176057, Pg 106
- Input voltage: 110V @ 18A 50-60Hz single phase
- 3 conductor pigtail power cord: 5' long
- Size (unit): 18.1"L X 11.5"W X 6.0"H
- Size (tub): 12.0"L X 8.0"W X 2.9"H
- Weight: 23.1 lbs. • One-year warranty



Part No.	Description	1	5
149876	2000 watt solder pot	$399.95	$359.95

80-Watt Ultrasonic Steri-Cleaner

- Operating frequency: 46kHz
- Power supply: 110VAC @ 60Hz, standard 2-prong 6' cord
- Tank capacity: 0.5 gallons
- Size (unit): 6.8"W x 6.5"D x 8.0"H
- Size (tank): 6.0"W x 5.4"D x 4.0"H
- Weight: 4.3 lbs.
- One-year warranty



Part No.	Description	1	10
149841	Ultrasonic steri-cleaner ..	$249.95	$224.95

Third Hand

- Frees hands for soldering
- Two adjustable arms with alligator clip jaws
- 2" diameter magnifying lens
- Quick and easy rotation
- Sturdy, heavy base
- Weight: P/N 26690: 0.7 lbs.; P/N 72864: 1.4 lbs.



72864

Part No.	Description	1	10	50
26690	Third hand	$5.95	$5.35	$4.79
72864	W/ soldering holder	7.95	7.19	6.49

Clamp Vise

- Lightweight, sturdy construction
- No tools needed – finger turn to tighten
- Ball cup allows vise to adjust to any angle
- Nylon jaws open 2" • Size: 10.0"L x 2.5"W



Part No.	Description	Wt. (lbs.)	1	10
127167	Clamp vise	2.1	$19.95	$17.95

PANAVISE Vacuum Vise

- Features the patented "split ball" that tilts, turns and rotates through three planes
- Nylon jaws open a full 2.25"
- Powerful suction pad for quick and easy set-up
- Size: 5.0"L x 4.0"W x 6.3"H
- Weight: 3.3 lbs.
- One-year warranty



Part No.	Product No.	Description	1	10
27131	M381	Vacuum vise	$59.95	$53.95

PANAVISE Electronic Work Center

- Circuit board holder, standard base, tray base mount, solder station, sponges and wire holder included
- Size: 8.5"W x 7.8"H
- Weight: 5.3 lbs.
- One-year warranty



Part No.	Description	1	5	10
27060	Electronic center ...	$74.95	$71.25	$66.95

PANAVISE PVjr. Vice

- Jaw opening: 2.8"
- Jaw size: 1" wide x 2" long
- Jaw heat tolerance: 350˚F
- Vertical/horizontal jaw grooves
- Fine/course adjusting knob
- The vise neck tilts, turns and rotates
- Vise height: 6.8"
- Base bolt is 4.3" and fits all PanaVise base mounts
- Weight: 1.4 lbs. • One-year warranty



Part No.	Description	1	10
134439	Jr. vice w/ mountable base	$19.95	$18.95

Solder Stand

- 12 pc. solder stand (some assembly required)
- Size: 3.6"W x 3.9"D x 4.3"H
- Shaft diameter: 0.6"
- Weight: 1.6 lbs.

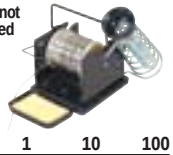


Solder not included

Part No.	Description	1	10	100
141760	Solder stand	$8.95	$7.95	$6.95

Solder Spool and Iron Stand

- 4 pc. stand (some assembly required)
- Shaft diameter: 0.6"
- Size: 6"L x 3.5"W x 3.1"H
- Sponge size: 1.6"W x 2.4"L
- Weight: 2.0 lbs.



Solder not included

Part No.	Description	1	10	100
169551	Spool & iron stand..	$12.95	$11.95	$10.95

Rosin Core Solder Rolls and Pocket Packs



* P/N 151474 is organic core

Part No.	Mfr.	% Composition Tin	Lead	Silver	Dia. (In.)	Wt. (lbs.)	Pricing 1	10	50	100
73576	Kester (pak)	60	40	0	.031	0.04	$2.59	$2.35	$1.99	$1.85
32117	Kester	60	40	0	.031	1.00	13.19	11.89	10.69	9.59
73605	Kester (pak)	62	36	2	.020	0.10	1.75	1.49	1.31	1.15
112344	Kester	63	37	0	.020	1.10	15.95	14.49	13.95	12.95
151474	Kester*	63	37	0	.031	1.00	11.95	10.95	9.95	8.95
170456	Golden	60	40	0	.031	0.06	.99	.85	.75	.65
141794	Super	60	40	0	.031	0.55	4.95	4.49	3.95	3.49
141786	Super	60	40	0	.031	1.10	7.95	6.95	6.25	5.59
141778	Super	60	40	0	.031	2.20	13.95	12.95	11.95	10.95

Lead-Free Solder Tip Tinner

Use will prevent oxide buildups and tin depletion on the tip which will increase tip life and heat transfer resulting in a better solder joint!



Safe and Effective!

- 0.7 oz. tin with self adhesive pad

Part No.	Description	1	10	50
132986	Lead-free tip tinner	$4.95	$4.59	$4.19

Solder Bars

- Used for soldering pots
- 25 Tin/lead
- Size: 13"L x 0.9"Dia.

176057: Weight: 1.1 lbs.
170464: Weight: 1.8 lbs.



170464

Part No.	Description	1	10	25
176057	Solder bar (60/40)	$7.95	$6.95	$6.25
170464	Solder bar (63/37)	10.95	9.95	8.95

Soldering Tip Cleaner with Stand and Rosin Paste Flux

156777:
- For cleaning soldering iron tips without the use of water and sponge
- Metal wool for cleaning
- Rubberized base for stability

73584: Highly active non-corrosive and non-conductive flux with excellent wetting action



156777



73584

Part No.	Description	1	10	50
156777	Tip cleaner & stand	$6.95	$6.25	$5.59
160004	Metal wool replacement	2.79	2.49	2.29
73584	Rosin paste flux (2 oz.)	1.59	1.45	1.29

Heat Sink and 7-Piece Soldering Aid Kit



100378



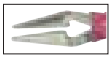
100503

100378: Heat sink absorbs and dissipates heat during soldering & desoldering of sensitive parts
100503 contains: Soldering wick, 3 pc. scraper set, acid brush, clip-on heat sink and empty squirt bottle

Part No.	Description	1	10	50
100378	Heat sink	$.85	$.74	$.59
100503	Soldering kit	4.95	4.49	3.95

Clip-On Heat Sink

- Absorbs and dissipates heat during soldering and desoldering sensitive parts
- Size: 2.7"L x 0.7"W





Part No.	Mfr. Cross Ref. No.	1	10	25
159126	HT156	$2.49	$2.25	$1.99

Plastic Pump Bottle

- 6 oz. bottle
- ESD compliant
- Plastic bottle with dispenser cover



Part No.	Description	1	10	50
158131	Pump bottle	$9.95	$8.95	$7.95

Conductive Anti-Static Foam and Bags

Don't get zapped!

Protect your investment with these inexpensive bags and ensure a safe work area with our conductive anti-static foam.



13864



78668

- For safe storage of static sensitive devices

13864: 24.0"L x 12.0"W x 0.25"H

Part No.	Description	1	10	100
13864	Anti-static foam	$7.95	$6.95	$5.95
78668	4 x 6 anti-static bags	.25	.22	.19
78650	8 x 10 anti-static bags	.69	.62	.55

STATICO ESD Common Point Grounding Cord



- 15 ft. long table mat/wrist strap common point grounding cord
- One end provides a 3/8" (10mm) female socket which snaps onto the ESD mat and two wrist strap banana connection receptacles, one for operator and one for guest
- No.10 ring terminal at the other end furnishes the means for ground connection

Part No.	Product No.	Description	1	10
176137	S1030NRF	Grounding cord	$11.95	$10.49

STATICO Dual Wrist Strap Grounding Block



- Provides two grounding points for wrist straps
- 15 ft. long green cord for direct path to ground
- Wrist strap cords can be snapped on to the two male snaps provided, while the operator is away from the work bench

Includes: An extra No. 10 ring terminal for alteration

Part No.	Product No.	Description	1	10
176145	S1045	Grounding block	$13.95	$12.49

Protective Coiled Grounding Wrist Strap



- Comfortable, adjustable Velcro wrist strap
- The coiled cord has banana plug and alligator clips
- Extended cord: 9' long
- Color: black

Includes: 1MΩ resistor for added safety

Part No.	Description	1	10	100
34551	Anti-static strap	$6.95	$6.25	$5.59

3M Wrist Strap for Static Protection



- Rubberized wrist strap for comfort
- 1MΩ resistance for static dissipation
- Length: 5'
- Coiled cord with a banana plug and alligator clip
- Zipper-style mechanism adjustable to any size wrist

Part No.	Description	1	10	100
159257	Adjustable strap	$7.95	$6.95	$6.25

Anti-Static Heel Strap



- Discharges static without restricting your mobility
- Ideal for anyone handling static sensitive devices
- Ground strap: 15.5"L

Part No.	Description	1	10	100
100327	Heel strap	$7.25	$6.53	$5.95

Anti-Static Work Mats

Make your work environment safe from static discharge! These mats are made of attractive semi-conductive vinyl that provide adequate discharging, yet will not short leads or pins.



168508

- Color: gray

Includes: Grounding clip

Part No.	Dimensions	Wt. (lbs.)	1	10	100
10575	11.3" x 22"	0.7	$8.95	$7.95	$6.95
10583	19.5" x 23.5"	1.1	12.95	11.69	10.49
168508	24" x 28"	1.8	16.49	14.89	13.49

Anti-Static Field Service Kit

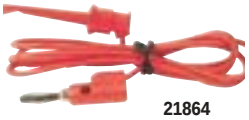
This kit provides all the basic items needed to create a static-safe work environment for field service work. The kit includes a 3M adjustable Wrist Band 2204, ground cords, and a static-dissipative work surface.



3M

Part No.	Description	1	10
159994	8506 Field service kit	$38.95	$34.95

Mini-Clip to Banana Test Cables


21864

- Plunger-type action
- Available in black or red
- Positive connection that won't disconnect from components
- Banana plug connection on opposite end
- Length: 3.5' • 20 AWG insulated wire

Part No.	Description	1	10	100
21856	Black test cable	$3.49	$2.95	$2.49
21864	Red test cable	3.49	2.95	2.49

Pomona® Stackable Banana Test Lead Cables


159898 159901 159919

- 5000V @ 15A • 55˚C max.

159898: Two 36" leads, mini clip w/ banana
- 45VAC @ 5A max.; beryllium copper contact and glass filled insulation

159901: Two 24" leads **159919**: Two 36" leads

Part No.	Prod. No.	Description	1	10	25
159898	3782-36	Mini w/ banana	$7.95	$6.95	$6.25
159901	B-24-02	Patch cord	9.95	8.95	7.95
159919	B-36-02	Patch cord	9.95	8.95	7.95

Banana to Banana Test Leads



- Stackable
- Color coded; 2 each red, yellow, blue, black, white • 9.8" long
- 10 per package
- 18 AWG wire

Part No.	Description	1	10	25
77841	Test leads	$22.95	$20.69	$18.59

Double-Banana Plug to Alligator Clips Test Cable



- Red & black rubber boot
- 4" lead wire • Length: 3'

Part No.	Description	1	10	50	100
107422	Test cable	$3.95	$3.49	$2.95	$2.49

Alligator Clip Leads



- 24 AWG wire
- Color-coded, 15" long
- Insulated alligator clip on each end
- 10 per pkg. in assorted colors

Part No.	Description	1	10	100	1000
10444	Alligator leads	$3.29	$2.99	$2.69	$2.39

BNC to Alligator Clip Test Cable

Permits BNC assembly to be used as a test cable.



- Upper connection: two alligator clips – red 5.5" 22AWG wire; black 9" 22AWG wire
- Lower connection: 23" RG/58U cable with BNC connector

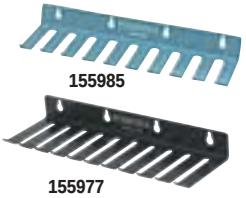
Part No.	Description	1	10	100	1000
11383	BNC cable	$3.29	$2.89	$2.49	$2.29

Pomona® Test Lead Holders

155985:
- Max cable dia.: 0.450"
- 11"L • Color: blue

155977:
- Max cable dia.: 0.320"
- 11"L • Color: black

155969:
- Max cable dia.: 0.210"
- 11"L • Color: orange


155985 155977

Part No.	Product No.	No. of Slots	1	10	25
155985	2708B	9	$7.95	$7.29	$6.59
155977	4408	10	7.95	7.29	6.59
155969	1508	14	7.95	7.29	5.69

Insulated Alligator Clips



- Color-coded
- Insulated barrel
- Jaw opening .375"-0.5"
- Accepts standard banana connector
- Solder strap and pre-drilled hole for 6-32 self threading screw • Size: 2.3"L x 0.5"W

Includes: One red and one black clip

Part No.	Description	1	10	100	1000
70990	Alligator clips	$.44	$.39	$.35	$.32

1 9/16" Banana Plugs



- Set-screw connection
- Standard banana spring plug
- Additional 6-32 threaded hole for connection reliability
- .1875" lead opening
- Insulating sleeve is threaded to banana plug body
- Size: 1.6"L x 0.4"Dia.

Includes: One red and one black plug

Part No.	Description	1	10	100	1000
72194	Banana plugs	$1.39	$1.25	$1.05	$.89

2¼" Banana Plugs



- Nine rib spring plug
- Will accept up to 0.1" dia. wire
- Set-screw connection
- Each plug equipped with hole for interconnection
- Size: 2.3"L x 0.3"W
- Insulating sleeve fits snugly over copper post

Includes: One red and one black connector

Part No.	Description	1	10	100
137525	Banana plugs	$2.95	$2.12	$1.84

Pomona® Solderless Banana Plug Sets


159863 159855 159927

- Nickel-plated • Set screws secure leads
- ABS insulation • 5000VDC @ 15A • 50˚C max.
- Color: 1 red and 1 black per set

159863: Solderless with safety collar & set screw
159855: Solderless with set screw
159927: Solderless double banana plug w/ wire guide

Part No.	Product No.	1	10	25
159863	1825-02 set	$2.45	$2.19	$1.95
159855	1325-02 set	2.45	2.19	1.95
159927	MDP-02 set	3.95	3.55	3.19

Double Banana Plugs


125217

- Dual gold-plated female banana plugs
- Stackable

Part No.	Description	1	10	100
125209	Blk banana connector	$1.95	$1.75	$1.49
125217	Red banana connector	1.95	1.75	1.59

1" Screw-Type Binding Posts



- For both wire and standard banana
- 0.16" hole for banana test leads
- Chassis mount with lock washer and nut
- Solder tab hole: 0.06" diameter
- Size: 1.0"L x 0.5"Dia.

Requires: 0.32" mounting hole

Includes: One red and one black insulated post

Part No.	Description	1	10	100	1000
71239	Binding posts (2)	$.99	$.85	$.69	$.59

1.75" Screw/Solder Binding Posts



- For both wire and standard banana
- 0.16" hole for banana test leads
- Solder post: 0.0625" diameter • Chassis mounting
- Size: 1.8"L x 0.5"Dia.

Includes: One red and one black insulated post

Part No.	Description	1	10	100	1000
77690	Binding posts (2)	$1.09	$.95	$.79	$.69

Double Binding Posts – Dual Banana



- Red/Black design • Screw-mount
- 0.72" between posts • Size: 1.6"L x 1.4"W

Part No.	Description	1	10	100
125196	Screw mount bind post	$3.09	$2.39	$2.19

Single Binding Post to BNC Male

See page 126 for BNC Connectors


100600

- Binding post with captive thumb nut
- Accepts standard banana plugs
- Operating voltage: 500 VRMS
- Brass nickel plated

Part No.	Description	1	10	100
100600	Red binding post	$1.95	$1.49	$.99
100618	Black binding post	1.49	1.19	.95

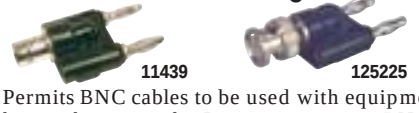
BNC to Double Binding Posts – Dual Banana


125233

- Red/Black design

Part No.	Description	1	10	100
125233	BNC-female	$3.25	$2.75	$2.49
99354	BNC-male	3.25	2.75	2.49

BNC to Standard Double Banana Plugs


11439 125225

Permits BNC cables to be used with equipment having banana jacks. Lower connection: BNC; upper connection: double banana plug on .750" centers. Cross holes .166" diameter in body provide side stack-up connections.

Part No.	Description	1	10	100
11439	BNC banana plug (F)	$3.95	$3.49	$3.19
125225	BNC banana plug (M)	3.95	3.49	2.95

Protected Banana Style Multimeter Test Probes



- Threaded/pointed test tip
- 18 AWG wire
- 42" long
- Black and red
- 2 per package

Part No.	Description	1	10	25
77737	Protected probes	$6.49	$5.85	$5.25

Standard Banana Style Multimeter Test Probes



- Black and red
- 18 AWG wire
- 42" long
- 2 per package

Part No.	Description	1	10	25
77745	Std. banana probes	$5.95	$5.35	$4.95

Micro-tip Probe Test Leads

PROBE MASTER



- 23K gold tips
- Silicon wire
- 1000V rated
- Length: 3'3"
- Spring loaded micro tip
- Weight: 0.2 lbs.

Includes: 8 plunger type tips

Part No.	Description	1	10	25
174625	Micro tip test leads	$34.95	$31.49	$28.95

Pomona® Replacement Probe Test Lead Set



- Set of two PVC 48" long insulated leads (black/red), probe to banana plug
- Fits Fluke, HP, Tektronix, Wavetek DMMs
- Right-angle multimeter connectors

Part No.	Product No.	1	10	25
155951	5519A	$12.95	$11.49	$10.49

Breadboard Pin to Breadboard Pin Test Leads



- 4 each red, yellow, blue, black, white
- 5.9" long
- 20 per package
- 20 AWG wire

Part No.	Description	1	10	25
77825	Breadboard pin leads	$11.95	$10.95	$9.95

Pomona® Basic Electronic DMM Test Lead Kit

Kit Contains 2 Each (Black/Red):



- Test probes with silicone insulated lead
- Slide-on extended tips & alligator clips
- Supplied in a reusable plastic case
- 48" leads
- Fits most equipment with banana jacks

Part No.	Product No.	1	10	25
155942	5672A	$22.95	$19.95	$16.39

Universal Test Lead Kit

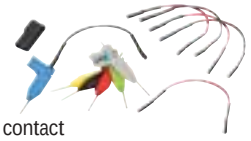


Includes: 3 ft. black/red cables, 4.5" black/red insulated test probes, 0.8" needle probes, spade terminals, 2 sets of 4 pieces each red/black insulated alligator clips and banana plug

Part No.	Description	1	10	100
168516	Universal kit	$8.95	$7.95	$6.95

Pipi Surface Mount Test Clips

Color Coded



- Can access 0.3mm pitch IC leads
- Stackable side by side
- High reliability: gold- plated hook and contact
- High durability: barrel extension is fluorine-resin coated
- Wire length: 3" test clip wires
- Clip/wire color: 2 each black, red, green, yellow, blue and gray

Includes: 3" ground wire with #8 spade terminal

Part No.	Description	1	10
170528	SMD nano clips (12)	$189.95	$169.95

Micro Test Clip



- One piece per package

Part No.	Description	1	10	100	1000
153162	1.6" micro test clip	$.75	$.59	$.39	$.29

Mini Test Clips



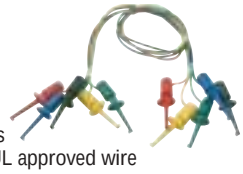
- Two lengths

Includes: One black and one red hooked probe clip

Part No.	Description	1	10	100
114809	1.75" mini test clips	$1.89	$1.49	$1.35
114817	3.5" mini test clips	1.75	1.55	1.39

Mini-Clip Test Leads

These spring loaded mini-clips hook easily to IC pins for testing.



- Set of five: red, blue, green, black and yellow
- 14"L; clips on both ends
- 26 AWG to 300V CSA/UL approved wire

Part No.	Description	1	10	100	1000
135298	Mini test leads	$11.49	$10.39	$9.29	$8.39

Pomona® Minigrabber® Test Clip Patch Cord Kits



- One each of 10 colors: black, brown, red, orange, yellow, green, blue, violet, gray and white
- 24" leads

Part No.	Product No.	Description	1	10
156494	5523	Patch cord (hook)	$34.95	$31.49
156507	5521	SMD cord (jaws)	59.95	53.95

BNC to Clip Test Cables



BNC connectors are designed for signal frequencies into the gigahertz range, making them ideal for communications, video and test equipment.

- Micro-clip or mini-clip
- Length: 39"

Part No.	Description	1	10	50	100
11421	Micro-clip RG174	$3.69	$3.29	$2.85	$2.49
11463	Mini-clip RG174	4.39	3.99	3.59	3.19

Pomona® BNC Male w/ Molded Strain Relief to Minigrabber® TestClips



- RG 174/U, .100" O.D.
- Rating: 300 VRMS max., +50˚C (+122˚F) max.
- Strain relief: PVC molded directly to connector
- Length: 36"

Part No.	Product No.	Description	1	10
176954	5187-K-36	Minigrabber®	$21.95	$19.95

Pomona® BNC Male w/ Molded Strain Relief to Minigator® Test Clips



- RG 58C/U, .195" O.D.
- Rating: 45 VRMS max., +50˚C (+122˚F) max.
- Jaws open to .187" max.
- Length: 36"

Part No.	Product No.	Description	1	10
176971	4532-C-36	BNC/Minigator®	$17.95	$15.95

Pomona® BNC Cables



- RG58 C/U 50Ω cable
- BNC male connectors
- Molded strain relief
- Length: P/N 159871: 36" P/N 159880: 60"

Part No.	Product No.	1	10	25
159871	2249-C-36	$13.95	$12.49	$10.95
159880	2249-C-60	16.95	14.95	10.95

How to Test Almost Everything Electronic Book



TAB Publishing Filled with easy-to-follow instructions on how to troubleshoot all types of electronic systems. Learn the many uses of electronic tools, test equipment and troubleshooting techniques using flowcharts. (326 pages, 1993)

Part No.	Size	Wt. (lbs.)	1	10
126199	7.4" x 9.3"	1.3	$17.95	$16.15

We'll match the advertised price of any like product.

Jameco's Low-Price Guarantee

It's that simple!

Handheld Oscilloscope and Multimeter

Six Units in One!



- 4,000 count True RMS DMM
- 1MHz bandwidth oscilloscope
- 20MHz sampling rate
- Logic test • Frequency counter
- Trend mode allows recording of sine waves for a period of time
- Component test • Three-year warranty

Includes: AC charger, test leads and manual

Part No.	Description	1	5
160805	440 digital oscilloscope ..	**$349.95**	**$339.95**
168330	RS-232 software and cable	**69.95**	**62.95**

Digital Handheld Oscilloscope



- 5MHz for repetitive signals; 0.5MHz for single shot events
- Input impedance: 1MΩ/20pF
- Maximum input voltage: 100V peak (AC + DC)
- Input coupling: DC, AC, and GND (GND for auto zero reference)
- LCD graphics display: 64 x 128 pixels (64 x 96 pixels for signal)
- High contrast LCD display w/ 3.3" viewing angle
- Vertical resolution: 8-bit (6-bit for LCD)
- Timebase range: 2µs to 20s/div
- Input sensitivity: 5mV to 20V/div • Screen hold
- Trigger mode: run, normal, once, and ± slope
- True RMS and dB measurements • Linearity: ±1 bit
- Recommend 9VDC @ 300mA power supply (P/N 133891, pg 61)
- Size: 8.7"L x 4.2"W x 1.5"H
- Batteries not included, recommend P/N 32627 or P/N 151087, pg 168 • Weight: 1.6 lbs.

Includes: Insulated BNC to alligator clip measurement probes and case

Part No.	Description	1	5
168823	5MHz scope (Model HPS5)	**$199.95**	**$179.95**

Digital 1GHz PC Oscilloscope Plus Spectrum Analyzer and Transient Recorder



This digital PC oscilloscope also features spectrum analyzer & transient recorder functions & functions through the Windows® interface.

- Sampling frequency: (real-time) 1.25kHz–50MHz; (repetitive) 1GHz
- Inputs: 2 channels, 1 external trigger input
- Input impedance: 1MΩ / 30pF
- Max. input voltage: 100V (AC and DC)
- Power required: 9V to 10V @ 1000mA (recommend P/N 100888, pg 61) • Parallel Port Interface

Oscilloscope: • Timebase: 20ns–100ms per division
- Input sensitivity: 5mV–15V per division with auto step-function
- Recording length: 4096 samples per channel

Spectrum Analyzer: • Frequency range: 0 to 25MHz

Transient Recorder:
- Time scale: 20ms/div–2000s/div
- Max. recording time: 9.4 hours/screen
- Max. number of samples: 100/s

System requirements: IBM compatible PC, Windows® 95/98/ME, SVGA card, mouse, printer port, CD-ROM

Includes: 2 test leads, PC parallel cable, manual and CD-ROM software

Part No.	Product No.	1	5
200184	PCS500	**$478.95**	**$429.95**

PC-MultiScope 100MHz Dual-Channel DSO



mission technology

- 100MHz sampling; dual channel
- Chart recorder and FFT mode
- 5mV to 5V per div.; 20MHz bandwidth; ext. trigger
- 0-4MHz sine and square wave signal generator
- Triple power supply; 5VDC @ 500mA and ±0-8VDC @ 250mA
- Size: 4.3"L x 5.0"W x 1.5"H • Weight: 3.8 lbs.
- One-year warranty

Includes: Parallel port cable, AC adapter, alligator clip probe, Windows® 3.1/95/98 software

Part No.	Description	1	10
163230	PC-MultiScope 3	**$579.95**	**$529.95**

Protek ISA Digital Oscilloscope Card for Windows®

Dual Channel PC-Based DS0



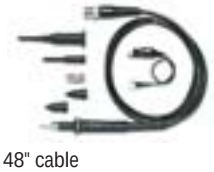
- 20MS/s sample rate per channel
- 8-bit resolution
- Amplitude: max. 300V + pk
- Auto setup: 30Hz to 2MHz, 35V p-p max.
- Impedance: 1MΩ 25pF
- External trigger coupling: AC
- Trigger levels: ±3 div • Trigger type: analog
- Time range: 50ns/div to 0.5s/div 1-2-5 22 step
- Input range: 50mV/div to 5V/div 1-2-5 7 step
- One-year warranty

System requirements: IBM PC 486, Pentium® or compatible; 8MB of RAM; VGA graphics card and monitor; 8-bit ISA slot and Windows® 95/98

Includes: CD-ROM software, driver, manual & probes

Part No.	Description	1	5
153568	Oscilloscope card	**$229.95**	**$209.95**

Pomona® 100MHz Probe Set



- Complete accessory kit included
- Attenuation: X1/X10
- Bandwidth: 15/100MHz (-3dB)
- Risetime: 23.33/3.5ns
- Input resistance: 1/10MΩ
- Capacitance: 64/10.5pF • 48" cable
- Compensation range: NA/10~60pF

Part No.	Product No.	Description	1	10
156451	4550B	Probe kit	**$51.95**	**$46.95**

Opening an account is easy!!

Corporate Customers

Call 1-800-831-4242 for details today



60MHz Modular Oscilloscope Probe



- Hook and pointed probe
- Alligator clip ground wire
- Max: 600VDC
- BNC male connector
- 5' cable

Attenuation	x1	x10
Bandwidth (1dB)	3MHz	40MHz
Bandwidth (3dB)	6MHz	60MHz
Impedance (R/C)*	1MΩ /180pF	10MΩ /22pF

* *with oscilloscope input 30pF*

Part No.	Mfr. Cross Ref. No.	1	10	50
22891	LF101E	**$22.95**	**$20.79**	**$18.69**

100MHz Modular Oscilloscope Probe



- Hook and pointed probe
- Alligator clip ground wire
- Max: 600VDC
- BNC male connector
- 5' cable

Attenuation	x1	x10
Bandwidth (1dB)	3MHz	60MHz
Bandwidth (3dB)	6MHz	100MHz
Impedance (R/C)**	1MΩ /150pF	10MΩ /14pF

** *with oscilloscope input 20pF*

Part No.	Mfr. Cross Ref. No.	1	10	50
66149	LF210A	**$31.95**	**$27.99**	**$24.99**

150MHz Oscilloscope Probe



Designed for use with Tektronix and Hewlett Packard oscilloscopes.

- 3 position switch: 1X, ref, 10X
- Bandwidth @ 3dB: 10MHz (X1); 150MHz (X10)
- Loading: 57pF, 1MegΩ (X1); 15pF, 10MegΩ (X10)
- Low-resistance gold contacts • 7-piece kit
- Cord length: 5'

Part No.	Mfr. Cross Ref. No.	1	10	50
174473	4901-02	**$44.95**	**$39.95**	**$36.95**

250MHz Oscilloscope Probe



- Hook and pointed probe
- Alligator clip ground wire
- Max: 600VDC
- BNC male connector
- 5' cable

Includes: Extra probes

Attenuation	x1	x10
Bandwidth (1dB)	3MHz	150MHz
Bandwidth (3dB)	6MHz	250MHz
Impedance (R/C)***	1MΩ /150pF	10MΩ /14pF

*** *with oscilloscope input 20pF*

Part No.	Mfr. Cross Ref. No.	1	10	25
140687	LF290	**$41.95**	**$37.95**	**$33.95**

Micro-tip Probe Test Leads



- 23K gold tips
- Silicon wire
- 1000V rated • Length: 3'3"
- Spring loaded micro tip

Includes: 8 plunger type tips

Part No.	Description	1	10	25
174625	Micro tip test leads	**$34.95**	**$31.49**	**$28.95**

Part Number Color Code: New Sale Refurbished Closeout

EZ DIGITAL

20MHz Dual-Trace Oscilloscope



- 6" rectangular high-resolution blue CRT with internal graticule & scale
- Vertical deflection: 5mV/div to 5V/div in 10 calibrated steps
- Horizontal deflection: 0.2µs/div to 0.2s/div in 19 calibrated steps, 1-2-5 sequence
- Max. signal input voltage: 250V (DC and peak AC)
- ADD function measures sum of two signals
- Input voltage: 98-125VAC @ 1A, 198-225VAC @ 0.5A, 50-60Hz, 45W
- Two-year manufacturer's warranty
- Size: 16.4"L x 12.6"W x 5.3"H • Weight: 20.8 lbs.

Includes: Two 40MHz probes (X1 & X10), power cord, manual, and block diagram

Part No.	Product No.	Description	1	10
136098	OS5020	20MHz scope	**$429.95**	**$399.95**

EZ DIGITAL

20MHz Dual-Trace Oscilloscope with 1MHz Function Generator



- Basic specs same as OS5020 (above)
- **Function generator**
- Frequency range: 0.1Hz to 1MHz (7 ranges)
- Output waveform: sine, triangle, square, TTL pulse
- Output impedance: 50Ω • Output voltage: 14Vp-p
- Input voltage: AC100/120/220/240V 50-60Hz
- Two-year manufacturer's warranty
- Size: 12.6"L x 12.6"W x 6.8"H • Weight: 23.8 lbs.

Part No.	Product No.	Description	1	10
94650	OS5020G	Func. gen.	**$529.95**	**$499.95**

Dual-Channel 150MHz Digital Oscilloscope



EZ DIGITAL

- Repetitive bandwidth: 150MHz
- Maximum sample rate: 100MS/s (real time mode)
- Record length: 32k
- Resolution: 8-bits
- 5.7" mono LCD display (320 x 240)
- Math functions and set-up save/recall
- Automatic measurement amplitude, auto set-up of vertical, horizontal D.F., & trigger level
- Vertical sensitivity: 2mV/div to 5V/div
- Input impedance: 1MΩ or 50Ω, 20pF nominal
- Max. input: 300V@1MΩ; 5V @ 50Ω
- Horizontal time base range: 2ns/Div to 5s/Div
- Trigger sensitivity: DC – 10MHz; 0.5 Div.
- Input voltage: 90 to 250VAC @ 48-440Hz
- Size: 12.9"L x 12.3"W x 5.9"H
- Weight: 13.2 lbs.

Part No.	Product No.	1	5
201865	DS-1150	**$1,599.95**	**$1,439.95**

Dual-Channel 100MHz Digital Oscilloscope with 3¾-Digit Multimeter



EZ DIGITAL

Oscilloscope:
- 250MS/s
- 100MHz bandwidth, dual channel, dual digitizers
- Fast rise time & low overshoot
- Low drift low noise reduction
- RS-232C programmability
- Vertical axis: 8-bits; 1mV/div to 5V/div in 12 steps; input impedance 1MΩ/25pF; 42Vpeak (DC + peak AC) max.
- Horizontal axis: 2k words/CH memory; 5ns/div to 5sec/div sweep time on equivalent sampling; 5ns/div to 0.5us/div sweep time on real sampling

4000-Count 3¾-Digit Digital Multimeter
- AC/DC voltage: 400mV to 400V in 4 ranges
- Resistance: 400Ω to 4MΩ in 5 ranges
- Minimum/Maximum/Relative/Hold functions

Includes: Serial cable, software, oscilloscope probes, multimeter probes and power supply

Part No.	Product No.	Wt. (lbs.)	1	5
190924	OS310M	8.6 ...	**$1,499.95**	**$1,375.95**

EZ DIGITAL

100MHz Delayed Sweep Oscilloscope w/ Frequency Counter

2 Channel, 4 Trace



- DC to 100MHz bandwidth
- 6" rectangular CRT with internal graticule
- Auto set, readout cursor, delay sweep, hold-off functions
- Z-axis intensity modulation: DC to 2MHz bandwidth; 30VDC + peak AC max. input voltage
- Vertical deflection factor: 2mV/div to 5V/div
- Horizontal time base A/B deflection: 5ns/div to 0.5s/div in 22 calibrated steps
- Input coupling: AC, GND, DC
- Rise time: 3.5ns or less

Part No.	Product No.	Wt. (lbs.)	1	5
190932	OS5100RB	17.6 ..	**$1,199.95**	**$1,075.95**

20MHz Dual-Trace Oscilloscope With Built-in Component Checker



Protek

- 6" rectangular CRT with internal graticule
- Built-in component checker/tester for resistors, capacitors, coils, diodes
- Vertical sensitivity: 5mV/div to 20V/div in 12 calibrated steps (1-2-5 sequence)
- Input impedance: 1MΩ + 20pF
- Max. input voltage (vertical amplifier): 300VDC or AC peak
- Horizontal sweep time: 0.2s/div to 0.5s/div in 20 calibrated steps (1-2-5 sequence)
- Internal trigger sensitivity: 20Hz to 20MHz
- Size: 17"L x 14"W x 5.75"H • Weight: 15.5 lbs.

Includes: Two 60MHz probes (X1 and X10), power cord, and operations manual

Part No.	Product No.	1	5
201857	P-3502C	**$429.95**	**$386.95**

Handheld 20MHz Digital Oscilloscope & Multimeter

METEX®



(Shown w/ logic probe P/N 162974 – not included)

- 4-in-1 test equipment: digital oscilloscope, DMM, frequency counter and logic analyzer
- Easy-to-read LCD display
- **Oscilloscope**: 2-channel input, 5mV-2V/div; DC-20MHz(-3dB); 50ns - 0.5us/div; 20 MS/s sampling rate
- **Logic analyzer:** 8 inputs; 1.4V threshold level; 35VDC max. input; 50ns min. pulse width
- **Digital multimeter:** 3¾-digit (max. 3999 counts); 40 segment analog bargraph; AC/DC voltage from 400mV-600V; AC current from 40µA-400mA; DC current from 400µA-400mA; resistance from 400Ω-40MΩ; continuity & diode testing
- **Frequency counter:** 5Hz-20MHz; 5 digit max.; autoranging; AC/DC/DC input coupling; ±10ppm accuracy; 35Vrms/42V-P/60VDC max. input
- Oscilloscope probes use P/N 22891/66149/ 140687, pg 109 • One-year warranty
- Battery required for portable use (see below)
- Size: (unit) 10.0"L x 5.0"W x 2.0"H • Wt.: 9.2 lbs.

Includes: Manual, 5VDC @ 3A power supply, power cord, DMM test leads, holster and case

Part No.	Description	1	5
162430	20MHz digital scope	**$799.95**	**$749.95**
162974	Logic probe	**59.95**	**53.95**
163141	Rechargeable battery	**45.95**	**41.49**
162966	RS-232 cable and software	**26.95**	**24.25**

Handheld 20MHz 2-Channel Digital Oscilloscope

Model 460



- Bandwidth: 20MHz • 2 channels
- RS-232: optically isolated output
- Sampling rate: 25 MS/s
- DC/AC voltage ranges (CH1/CH2): 400mV to 600V
- DC/AC voltage resolution ranges: 0.1mV to 1V
- Frequency ranges (CH1/CH2): 1Hz to 20MHz
- Resistance ranges (CH1 only): 400Ω to 20MΩ
- 4,000-count autoranging DMM
- Continuity and diode test
- Waveform: vertical 8 divisions of 20 pixels
- Backlight • Handheld
- 3" x 3" LCD screen • Adjustable contrast
- Meets Cat III 600V • Three-year warranty

Includes: AC charger, 2 banana to BNC adapters, 0-60 MHz oscilloscope probe, high performance test leads and manual

Part No.	Description	1	10
195231	460 Oscilloscope	**$939.95**	**$899.95**

100MHz Dual-Trace Oscilloscope

EZ DIGITAL



- DC to 100MHz, 2-channel dual trace
- Signal delay with delay line
- Auto focusing according to the change of intensity
- Two-year warranty
- Weight: 22.8 lbs.
- Size: 16.9"L x 12.6"W x 5.5"H

Part No.	Product No.	Description	1	5
121179	OS5100	Oscilloscope ...	**$999.95**	**$899.95**

2-Channel, 1.5GHz Frequency Counter



- Frequency, period, totalize, RPM
- Gate time: 0.01s, 0.1s, 1s, 10s
- 9-digit green LED display
- Input power: AC 110V/220V ±10%, 50-60Hz
- Size: 10.3"L x 10.0"W x 3.2"H
- Weight: 5.3 lbs. • One-year warranty

Includes: Fuse, manual and BNC cable

Channel	Frequency Range	Resolution
A	0.1Hz-150MHz	0.1nHz-10kHz
B	50MHz-1.5GHz	0.1Hz-100kHz

Part No.	Product No.	1	5
55790	FC7150	$299.95	$259.95

2-Channel, 1.5GHz Universal Frequency Counter with Time Interval and Ratio



- Frequency range: 0.1Hz to 150MHz (A/B input); 50MHz to 1.5GHz (C input)
- Resolution: 1nHz to 10Hz
- Gate time: 0.01s, 0.1s, 1s, 10s
- Totalize, period and RPM function
- Sensitivity: 20Vrms (A, B input); 30Vrms (C input)
- Impedance: 1MΩ < 40pF (A, B inputs); 50Ω (C input)
- 9-digit LED green display
- Input voltage: 115/230VAC @ 50-60Hz (switchable)
- Size: 10.2"L x 10.0"W x 3.1"H • Weight: 6.0 lbs.

Part No.	Product No.	1	5
201873	FC-7150U	$359.95	$319.95

NEW Fluke 123 20MHz Industrial Scopemeter® with FlukeView Software

Digital Scope, 15-Function Digital Multimeter & Recorder



The Fluke 123 is the ideal choice for troubleshooting industrial machinery, instrumentation, control and power systems. The Fluke 123 automatically recognizes signal patterns and sets up correct triggering, timing, and amplitude for stable displays.

- **Digital Scope:** dual-input 20MHz oscilloscope with 1.25GS/sec. repetitive sampling rate
- **Digital Multimeter:** dual-input 5000-count True RMS meter with ohms, capacitance & temperature
- **Recorder:** dual-channel TrendPlot™

FLUKE

FlukeView Software (Version 3.04)

- Documenting: transfer screens, waveforms & data to your PC for printing or importing to other programs
- Archiving: store and retrieve waveforms with text annotations and create your own library
- Analysis: gather valuable data and enable cursor measurement, extend recording of up to four user-selected measurements, upload waveforms and use cursors for detailed measurements
- Compatible with Windows® operation system
- Size: 4.5"W x 2.0"D x 9.1"H • Weight: 5.8 lbs.

Part No.	Model No.	Price
203131	Fluke 123/003SR	$1,195.95
162747	Fluke 123-003 w/o software	899.95

METEX® 4-in-1 Universal System

With Function Generator, Universal Counter, DC Power Supply & Digital Multimeter



Save bench space & $800!

- **Function generator** capable of generating seven forms of waves (sine, square, triangle, skewed sine, ramp, pulse, and TTL square wave) in seven frequency ranges from 0.2Hz to 2MHz
- **Universal counter** capable of measuring frequency ranges from 5Hz to 1.3GHz
- **DC power supply** capable of generating 5V @ 2A, 15V @ 1A fixed and 0 to 30V @ 0 to 2A variable
- **Digital multimeter** with ranges of: DC voltage (400mV to 100V), AC voltage (400mV to 750V), DC/AC current (40mA to 20A), resistance (400Ω to 40MΩ), capacitance (4nF to 400μF) and forward resistance of a semiconductor junction in kΩ
- One-year warranty
- Size: 14.5"W x 14.0"D x 7.0"H • Weight: 37 lbs.

Includes: Manual, cables and software

Part No.	Product No.	1	5
160864	MS9150	$549.95	$499.95

2MHz Function Generator and 2.7GHz Frequency Counter

Function Generator: (2Hz - 2MHz)



- Wave forms: sine, square, triangle, skewed, ramp, pulse & TTL level square
- Frequency: 2Hz to 2MHz in 7 ranges
- Output impedance: 50Ω ±10%
- Output amplitude: 2 to 20Vpp at open load; 1 to 10Vpp at 50Ω load
- Offset variable range (max.): ±10VDC at open load
- Frequency sweep time: 20ms to 2s

Frequency Counter: (5Hz - 2.7GHz)

- Measuring range: channel A: 1Hz to 20MHz; channel B: 20MHz to 2.7GHz
- Input sensitivity: channel A: 20mVRMS sinewave or 100mVp-p; channel B: 40mVRMS for 20MHz to 1.3GHz; 70mVRMS for 1.3GHz to 2.7GHz
- Max. input voltage: channel A: 35Vp-p; channel B: 3Vp-p
- Input impedance: channel A, 1MΩ; channel B, 50Ω
- Size: 11.0"L x 8.2"W x 3.7"H
- Weight: 13.4 lbs.

Includes: Coax & power cable, manual and software

Part No.	Description	1	5
192671	Function generator/counter	$299.95	$269.95

17MHz Logic Probe



- Max input frequency: 17MHz
- Minimum pulse width: 30ns
- Input impedance: 1MΩ
- Pulse flash time: 500ms
- Audible tones for high and low
- Power supply protection: ±20V
- TTL threshold: (Lo) 0.8V ±0.2V, (Hi) 2.3V ±0.2V
- CMOS threshold: (Lo) 30% VCC, (Hi) 70% VCC
- Size: 7.7"L x 1.0"W x 0.6"H

Part No.	Description	1	10	25
149930	Logic probe	$32.95	$29.95	$26.95

BK PRECISION 150kHz Sine/Square-Wave Audio Generator

Small and convenient, this audio generator can be used to test telco and audio equipment.



- 20Hz to 150kHz in 46 steps
- Low distortion R-C oscillator
- Variable output control
- Size: 5.9"L x 3.2"W x 0.8"H
- Output Impedance: 600Ω
- Weight: 0.7 lbs.
- One-year manufacturer's warranty

Includes: 9VDC battery

Part No.	Product No.	Description	1	10
166334	BK3001	Audio generator	$78.95	$71.95

2MHz Function Generator



- Frequency range: 0.02Hz to 2MHz
- Waveforms: sine, triangle, square, ramp, TTL pulse, skewed sine
- Variable waveform/duty cycle symmetry
- DC offset voltage from 0 to ±10V; can be superimposed to output waveform
- Output voltage: 20Vp-p (open circuit), 10Vp-p (into 50Ω)
- Input voltage: 110V/220V 50-60Hz
- One-year manufacturer's warranty
- Size: 10.0"L x 8.0"W x 3.0"H • Weight: 5.4 lbs.

Includes: Power cord, BNC to clip cable, fuse and manual

Part No.	Product No.	1	5	10
66069	FG8002	$189.95	$179.95	$169.95

5MHz Function Generator

Engineered for high reliability and user convenience.



BK PRECISION

- Waveforms: sine, square, triangle, and ramp
- 0.5 to 5MHz • 100% DC offset
- Variable duty cycle
- Output Impedance: 50Ω
- Coarse and fine tuning
- Two-year warranty
- Size: 10.4"W x 11.7"D x 3.4"H • Weight: 6.2 lbs.

Part No.	Product No.	Description	1	5
160469	BK4011A	0.5 to 5MHz	$314.95	$299.95

2MHz & 5MHz Sweep Function Generators with 6-Digit Frequency Counter



201881

- Frequency range: 0.02Hz–2MHz (P/N 94676); 0.02Hz–5MHz (P/N 201881) in 7 ranges
- Sweep width: 1:1 to 100:1; rate: 20ms to 25s (.5Hz-50Hz)
- Output impedance: 50Ω ±5%
- Frequency counter range: 0.2Hz to 50MHz
- Maximum input voltage: 250Vp-p
- Input voltage: 115/230VAC @ 50-60Hz (switchable)
- Size: 10.3"L x 10.0"W x 3.2"H • Weight: 5.8 lbs.
- One-year warranty

Includes: Probe and detachable power cord

Part No.	Prod. No.	Description	1	5
94676	FG7002C	2MHz Func. gen.	$329.95	$296.95
201881	FG7005C	5MHz Func. gen.	399.95	359.95

EZ DIGITAL

90-Watt Digital & Analog DC Power Supplies

30VDC @ 3A



101928
Meter Face



121152

- Constant current and constant voltage operation
- Can be used for positive or negative source
- Overload protection circuit
- Input voltage: 100-240VAC @ 50-60Hz
- Size: 5.2"W x 5.6"H x 10.0"D
- Weight: 10.9 lbs. • One-year warranty

Part No.	Product No.	Description	1	10
101928	GP4303A	Analog DC ..	$199.95	$179.95
121152	GP4303D	Digital DC	209.95	189.95

100-Watt Digital and Analog DC Power Supplies

30VDC @ 3A

EXTECH INSTRUMENTS



197991

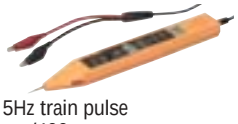


197982

- Triple output with fixed 5VDC @ 0.5A, 12VDC @ 0.5A
- Adjustable 0 – 30V voltage and 0 – 3A current outputs
- Displays of both voltage and current
- Constant voltage or current
- Current limiting indicator
- Overload and short circuit protection
- Binding post terminals for variable supply
- Input voltage: 110/220VAC @ 50-60Hz (switchable)
- Size: 9.5"L x 6.0"W x 5.6"H • Weight: 10 lbs.

Part No.	Description	1	10
197991	Digital DC	$198.95	$178.95
197982	Analog DC	168.95	151.95

Logic Pulser



- Compatible with TTL, DTL and CMOS ICs
- 1MΩ sync input impedance
- "One shot" or continous 5Hz train pulse
- Pulse repetition rate: 0.5pps/400pps
- Pulse width output at 100mA load: 10µs
- Pulse mode output current: 10mA
- Square wave current output: 5mA
- Size: 7.8"L x 1.0"W x 0.6"H

Part No.	Description	1	10	25
24601	Logic pulser	$19.95	$17.95	$15.95

150-Watt Digital Power Supply

30VDC @ 5A



- Adjustable voltage/ current outputs
- Constant voltage and current operation
- LCD displays for both current and voltage
- Coarse and fine adjustment knobs for current and voltage
- Color-coded terminals for positive, negative and ground connections
- 2A @ 250V fuse
- Dual digital display • One-year warranty
- Input voltage: 110/220VAC @ 50-60Hz (switchable)
- Size: 5.4"W x 10.7"D x 6.0"H • Weight: 13.8 lbs.

Part No.	Description	1	10	25
153242	30VDC @ 5A ..	$249.95	$224.95	$213.95

150-Watt Linear Power Supply

15VDC @ 10A



- Output voltage: 2VDC to 15VDC
- Output current: 15A max.
- Constant voltage and current operation
- Color-coded terminals for positive and negative terminals, voltage adjustment knob
- Over-voltage, over-current, short-circuit protection
- Cigarette lighter output current plug
- LED indicator for power and warning
- Current and voltage panel meter
- Built-in fan • Input voltage: 110VAC @ 60Hz
- Size: 5.7"L x 6.2"W x 4.0"H • Weight: 12.0 lbs.

Part No.	Mfr. Cross Ref. No.	1	10	25
175265	DPS150A	$149.95	$134.95	$129.95

150-Watt Power Supply

50VDC @ 3A



- Adjustable voltage/current outputs
- Constant voltage & current operation
- Color-coded terminals for ground, positive and negative terminals
- 3A @ 115V fuse
- Color-coded adjustment knobs for voltage, current and fine adjustment
- Input voltage: 110VAC @ 60Hz
- Color: dark gray
- Size: 9.0"L x 4.75"W x 7.5"H
- Weight: 12.3 lbs. • One-year warranty

Part No.	Description	1	10	25
163723	50VDC @ 3A ..	$159.95	$144.95	$137.95

MASTECH

100W to 600W Benchtop Power Supplies

NEW



207618



207706

- Voltage and current adjustable
- Current restricted and short-circuit protection

207618/207626: Analog power supplies

- Accuracy: 2.5%

207693/207706/207600/207634/207685: Digital power supplies

- Two 3-digit LED display
- Voltage accuracy: 1% + 2 digits
- Current accuracy: 1.5% + 2 digits

Part No.	Product No.	Watts	Voltage/Current	Size (W"xH"xD")	Wt. (lbs.)	1	10
207618	HY3005C	150	30VDC/5A	5.4 x 6.2 x 11.5	30.1	$159.95	$144.95
207626	HY3010C	300	30VDC/10A	14.4 x 6.5 x 10.4	32.0	299.95	269.95
207693	HY5002	100	50VDC/2A	6.2 x 5.4 x 11.5	28.7	199.95	179.95
207706	HY5003	150	50VDC/3A	6.2 x 5.4 x 11.5	30.1	249.95	224.95
207600	HY5005	250	50VDC/5A	6.2 x 5.4 x 11.5	25.4	299.95	269.95
207634	HY3010	300	30VDC/10A	14.4 x 6.5 x 10.4	32.0	399.95	359.95
207685	HY3020	600	30VDC/20A	14.4 x 6.5 x 10.4	44.1	499.95	449.95

190-Watt Triple Output Power Supply

Digital Display



EZ DIGITAL

- **Output voltage:**
  0 to +30VDC @ 3A
  0 to -30VDC @ 3A
  +5VDC @ 2A
- Ripple voltage: less than 3mVp-p
- Volt and current meter: LED display (±1% + 1 digit)
- Overload protection circuit
- Input voltage: 100VAC-230VAC @ 50-60Hz (switchable)
- Weight: 23 lbs. • One-year warranty

Includes: Manual and spare fuse

Part No.	Product No.	1	5
157518	GP4303TP	$549.95	$529.95

225-Watt Analog Power Supply

15VDC @ 15A



- Output voltage: 9VDC to 15VDC
- Output current: 25A max. (22A continuous @ 13.8VDC)
- Constant voltage
- Over-voltage protection @ 16.5V
- Short-circuit protection @ 27.5A
- Color-coded adjustment knob and output terminals for voltage
- Cigarette lighter plug for current output
- Power and fan LED indicator • Built-in fan
- Voltage and current panel meter
- Input voltage: 110VAC/220VAC @ 47-63Hz (switchable)
- Size: 5.6"L x 6.2"W x 4.0"H • Weight: 3.8 lbs.

Part No.	Mfr. Cross Ref. No.	1	10	25
175257	SPS250A	$169.95	$152.95	$144.95

250-Watt Analog Power Supply

50VDC @ 5A



- Adjustable voltage/current outputs
- Constant voltage and current operation
- Color-coded adjustment knobs for voltage, current, and fine tuning
- Color-coded terminals for ground, positive, negative
- 5A @ 250V fuse • Isolated ground
- Input voltage: 110VAC @ 50-60Hz
- Color: dark gray
- Size: 4.9"L x 7.7"W x 6.7"H
- Weight: 13.8 lbs.

Part No.	Mfr. Cross Ref. No.	1	10	25
175249	DPS5050	$179.95	$159.95	$151.95

How to Test Almost Everything Electronic Book



TAB Publishing Filled with easy-to-follow instructions on how to troubleshoot all types of electronic systems. Learn the many uses of electronic tools, test equipment and troubleshooting techniques using flowcharts. (326 pages, 1993)

- Size: 7.4" x 9.3"
- Weight: 1.3 lbs.

Part No.	Description	1	10
126199	Logic probe	$17.95	$16.15

Digital Multimeter Quick Selection Guide

** See indicated page for more details on each product*

All have VDC, VAC, Resistance and Current, except as noted

Handheld Digital Multimeters

Part No.	Best Sellers	Manufacturer No.	Page	Display Count	Analog Bargraph	RS-232 PC Interface	Autorange	True RMS	Capacitance	Inductance	Frequency	Temperature	Diode Test	Logic Test	Continuity Test	Transistor h_{FE} Test	Price
Features							**Standard Functions**					**Special Functions**					
27115	✔	Metex M3800	115	2000													$39.95
119212	✔	JE110	114	2000										✔		✔	19.95
192647	✔	Wavetek 10XL	114	2000										✔		✔	39.95
197958		Extech MV110	115	2000										✔		✔	38.95
192621		Wavetek/MM 15XL	114	2000										✔	✔	✔	59.95
197966		Extech MV120	115	2000					✔			✔	✔		✔	✔	68.95
192604		Wavetek 23XT	114	2000								✔	✔	✔	✔	✔	69.95
177480	✔	AEEC2890	114	2000					✔		✔	✔	✔		✔	✔	49.95
141250		BelMerit DX405	114	2000					✔		✔		✔		✔	✔	74.95
155483		Metex ME-21	115	2000	✔	✔					✔		✔	✔	✔		59.95
192575	✔	Wavetek 25XT	114	2000					✔		✔		✔	✔	✔	✔	79.95
147096		BelMerit DX460L	114	2000					✔	✔	✔		✔	✔	✔	✔	99.95
155475		Metex ME-22	115	2000	✔	✔					✔	✔	✔	✔	✔	✔	79.95
160813		Metex M3640D	115	2000	✔	✔			✔		✔	✔	✔		✔	✔	99.95
155491		Metex ME-22T	115	2000	✔	✔		✔			✔	✔	✔	✔	✔	✔	89.95
101936		DM333	114	3200	✔		✔						✔		✔		67.95
182035		Fluke 73-III	Below	3200	✔		✔						✔		✔		148.95
192612		Wavetek/MM 35XL	114	3200	✔		✔		✔				✔		✔		64.95
198694		Wavetek/MM DM73B	114	3400											✔		49.95
192583		Wavetek/MM AC40A	116	4000			✔	(No DC current)							✔		74.95
163029		TPI 255	116	4000			✔								✔		89.95
163037		TPI 296	116	4000	✔		✔	✔			✔		✔		✔		189.95
163011		TPI 183	116	4000	✔	✔	✔	✔	✔		✔		✔		✔		189.95
117372		Metex M3850D	115	4000	✔	✔	✔		✔		✔	✔	✔		✔	✔	109.95
137461	✔	Metex M3860D	115	4000	✔	✔	✔	✔	✔	✔	✔	✔		✔	✔	✔	139.95
192655		Fluke 175	Right	6000	✔		✔	(No current)			✔		✔				168.95
192663		Fluke 177	Right	6000	✔		✔	✔	✔		✔		✔				188.95
185535	✔	Fluke 179	Right	6000	✔		✔	✔	✔		✔	✔	✔				208.95
190967		Fluke 110	Right	6000	✔		✔	✔	✔		✔		✔	✔	✔		99.95
190975	✔	Fluke 111	Right	6000	✔		✔	✔	✔		✔		✔	✔	✔		129.95
185527	✔	Fluke 112	Right	6000	✔		✔	✔	✔		✔		✔	✔	✔		149.95
136590	✔	Mastech MY65	115	20,000					✔		✔				✔	✔	69.95
144872		Metex M4640A	115	20,000	✔	✔			✔		✔		✔		✔	✔	139.95
195670	✔	Fluke 87-IV	Right	50,000	✔		✔	✔	✔		✔	✔					299.95
185199		B&K BK5360	116	50,000	✔		✔	✔	✔		✔		✔		✔		79.99
185201		B&K BK5380	116	50,000	✔		✔	✔	✔		✔		✔		✔		149.95
162843		Fluke 867BE120R	Below	30,000					✔		✔		✔	✔	✔		599.95
164312		Fluke 89-IV	Right	50,000	✔		✔	✔	✔		✔	✔	✔		✔		319.95
182043		Fluke 189	Right	50,000	✔		✔	✔	✔		✔	✔	✔		✔		398.95

Bench-Type Digital Multimeters

203801		Fluke 8012A	114	2,000													$199.95
132564		DM441	116	20,000				✔			✔		✔			✔	229.95
166852		Metex MXD4660A	116	20,000	✔	✔		✔			✔		✔	✔	✔	✔	249.95

Fluke 87 Series IV 50,000-Count Analog/Digital Multimeter



- 50,000 count digital and 51 segment bar graph display • AC/DC true RMS
- Backlight with 2 brightness levels
- Resolution: 1µV maximum
- **DC voltage ranges**: 50mV – 1000V
- **DC current ranges**: 500µA – 10A
- **AC voltage ranges**: 50mV – 1000V
- **AC current ranges**: 500µA – 10A
- **Resistance ranges**: 500Ω – 30MΩ
- Also conductance, capacitance, frequency and temperature
- Size: 3.9"W x 2.0"D x 8.0"H
- Weight: 1.2 lbs.

Part No.	Model No.	1	5
195670	Fluke 87 series IV	$299.95	$269.95

Fluke 175/177/179 6000-Count Digital Multimeters



185535

- Min./max./average functions
- Auto hold and manual hold
- IEC 1010 rating Cat IV 600V/ Cat III 1000V
- Resolution: 100µV maximum
- **DC/AC voltage ranges:** 600mV – 1000V
- **DC/AC current ranges:** 60mA – 10A
- **Resistance ranges:** 600Ω – 50MΩ
- Also capacitance and frequency
- Size: 6.3"L x 3.3"W x 9.2"H • Weight: 1.5 lbs.

185535 (Fluke 179): • Temperature: -40 to +400˚C

Part No.	Model No.	DC Accuracy	1	5
192655	Fluke 175	0.15%	$168.95	$159.95
192663	Fluke 177	0.09%	188.95	178.95
185535	Fluke 179	0.09%	208.95	187.95

Fluke 89-IV & 189 50,000-Count Multimeters w/ Data Logging



182043

- Digital and analog bar graph display
- Backlight with 2 brightness levels
- Fast auto range • AC/DC true RMS
- Resolution: 1µV maximum
- **DC/AC voltage ranges:** 50mV – 1000V
- **DC/AC current ranges:** 500µA – 10A
- Also capacitance, frequency and temperature
- Conductance, diode testing and continuity function capable
- Data logging: 288 intervals stored; 100 readings • Weight: 2.0 lbs.
- Size: 8.0"L x 3.9"W x 2.0" Thick

Part No.	Model No.	Resistance Ranges	1	5
164312	Fluke 89-IV	500Ω-500MΩ	$319.95	$299.95
182043	Fluke 189	500Ω-30MΩ	398.95	378.95

Fluke 867BE Graphical Multimeter

.5" Digit Height



- 30,000 count
- Resolution: 10µV maximum
- True RMS reading
- **AC/DC voltage:** 300mV – 1000V
- **AC/DC current ranges:** 300µA – 10A
- **Resistance ranges:** 300Ω – 30 MΩ
- **Capacitance ranges:** 1000pf – 1000µf
- **Frequency ranges:** 1KHz – 10MHz
- Conductance, duty cycle, period, pulse width
- Size: 5.4"W x 2.8"D x 9.7"H • Weight: 6.5 lbs.
- Three-year manufacturer's warranty

Part No.	Model No.	1	5
162843	FLK867BE120R	$599.95	$569.95

Fluke 73 Series III 3200-Count Analog/Digital Multimeter



- 3200 count digital display with 31 segment analog bar graph
- Cat II 600V rating with overvoltage protection
- Automatic touch hold
- Default auto range mode
- Resolution: 100µV maximum
- **DC/AC voltage ranges:** 320mV – 600V
- **DC/AC current ranges:** 320mA – 10A
- **Resistance ranges:** 320Ω – 32MΩ
- Diode and continuity test
- Size: 6.6"L x 3.0"W x 1.1"H • Weight: 0.8 lbs.

Part No.	Model No.	1	5
182035	Fluke 73 III	$148.95	$138.95

Fluke 110 Series 6000-Count Digital Multimeters



185527

- Basic DC accuracy of 0.7%
- True RMS reading • Autoranging
- Min./max./average functions
- CAT III 600V rated
- Resolution: 1mV maximum
- **DC/AC voltage ranges:** 6V – 600V
- **Resistance ranges:** 600Ω – 40MΩ
- Also capacitance, frequency and continuity
- Size: 11.8"L x 7.0"W x 3.0"H • Weight: 1.3 lbs.

185527 (Fluke 112): • Backlight display

Part No.	Model No.	AC current	DC current	Price
190967	Fluke 110	—	—	$99.95
190975	Fluke 111	10A	6A/10A	129.95
185527	Fluke 112	10A	6A/10A	149.95

Part Number Color Code
New Sale Refurbished Closeout

2000-Count Pocket Multimeter



- **DC voltage ranges:** 200mV, 2V, 20V, 200V, 1000V
- **AC voltage ranges:** 200V, 750V
- **DC current ranges:** 200µA, 2mA, 20mA, 200mA, 10A
- **Resistance ranges:** 200Ω, 2kΩ, 20kΩ, 200kΩ, 2MΩ
- Diode and continuity test
- 0.5" digit height
- Removable test leads
- Size: 2.6"W x 1.0"D x 4.8"H
- One-year warranty
- Weight: 0.5 lbs.

Includes: 9V battery

Part No.	Description	1	10	50
119212	Pocket multimeter	$19.95	$17.95	$16.19

Analog Pocket Multimeter



- **DC/AC voltage ranges:** 0 – 500V
- **DC current ranges:** 0 – 250mA
- **Resistance ranges:** 0 – 1kΩ
- Size: 2.3"W x 1.2"D x 3.6"H

SALE NEW

Includes: Insulated probes

Requires: 1.5V battery (recommend P/N 198707, pg 168)

Part No.	Description	1	10	50
206287	Pocket multimeter	$9.95	$8.95	$7.95

2000-Count Multimeter

With Temperature & Frequency Measurement



- 3½-digit LCD (1.0" digit height)
- Resolution: 100µV maximum
- **DC voltage ranges:** 200mV – 1000V
- **AC voltage ranges:** 200mV – 700V
- **DC/AC current ranges:** 200µA – 10A
- **Resistance ranges:** 200Ω – 200MΩ
- **Capacitance ranges:** 2nF – 20µF
- **Frequency**: 20kHz
- Weight: 1.6 lbs.
- **Temperature range:** -20˚C – 1000˚C
- Diode, transistor and continuity testing
- Data hold switch
- Size: 4.0"W x 2.0"D x 8.0"H

Incudes: Manual, probes, and 9V battery

Part No.	Mfr. Cross Ref. No.	1	10
177480	AEEC2890	$49.95	$44.95

Autoranging 3200-Count Multimeter



- 3¾-digit (0.53" digit height) LCD with analog bar graph
- Resolution: 100µV maximum
- **DC voltage ranges:** 320mV – 1000V
- **AC voltage ranges:** 320mV – 750V
- **DC/AC current ranges:** 320µA to .32A
- **Resistance ranges:** 320Ω – 32.59MΩ
- Diode/continuity test
- Auto range
- Auto power off
- Data hold
- Size: 7.7"L x 3.9"W x 1.5"H
- Weight: 1.5 lbs.

Part No.	Mfr. Cross Ref. No.	1	10
101936	DM333	$67.95	$59.95

BelMERIT 2000-Count Multimeters





- **DC voltage ranges:** 200mV-1000V
- **DC/AC current ranges:** 200µA-10A
- **Frequency ranges:** 2kHz-20MHz
- **AC voltage ranges:** 200mV-750V
- **Resistance ranges:** 200Ω-20MΩ
- Function and range annunciators
- Diode and continuity test
- Z_{IN} = 10MΩ
- Data hold
- Auto power off

Includes: Manual, test probes and 9V battery

Part No.	Description	Size (W x D x H)	Wt. (lbs.)	1	10
141250	Basic model w/ transistor h_{FE}; **Capacitance:** 2nF-20µF	4.0" x 2.3" x 8.0"	1.5	$74.95	$67.49
147096	**Inductance:** 20mH-20H; **Capacitance:** 2nF-2000µF	4.0" x 1.5" x 8.0"	2.7	99.95	89.95

10 & 11-Function Multimeters

2000-Count



- Resolution: 0.1mV maximum
- **DC voltage ranges:** 200mV – 1000V
- **AC voltage ranges:** 200mV – 750V
- **DC/AC current ranges:** 200µA – 10A
- NPN/PNP transistor, TTL/CMOS logic and diode test
- Continuity beeper
- Data hold
- Size: 7.2"L x 3.1"W x 1.5"H
- One-year warranty

SALE 192604

192604: 23XT

- Unique voltage Safety Tester®
- 10 functions/28 ranges & 4 voltage testers
- **Resistance ranges:** 200Ω – 2000MΩ
- **Temperature:** -20˚ to +750˚C (-4˚ to 1400˚F)



192575

192575: 25XT

- 11 functions/32 ranges
- Zero adjust knob
- **Resistance ranges:** 200Ω – 20MΩ
- **Capacitance ranges:** 200pF – 20mF
- **Frequency:** 40kHz

Part No.	Model No.	1	10	25
192604	23XT	$69.95	$62.95	$55.95
192575	25XT	79.95	71.95	64.95

Probe Style Pen Meters

3200 & 4200-Count

- Unique "Pen" Style DMM that allows easy, one-hand operation
- Auto power off
- One-year warranty

SALE



192591

192591:

- Resolution: 0.1mV maximum
- **DC voltage ranges:** 420mV – 300V
- **AC voltage ranges:** 4.2V – 300V
- **Resistance ranges:** 420Ω – 4.2MΩ
- Probe hold™
- Continuity test
- Size: 6.7"L x 1.3"W x 1.0"D

198694:

- Resolution: 0.1mV maximum
- **DC voltage ranges:** 340mV – 600V
- **AC voltage ranges:** 3.4V – 600V
- **Resistance ranges:** 340Ω – 34MΩ
- Superior 0.5% accuracy
- Analog bar graph
- Continuity beeper
- Size: 7.8"L x 1.4"W x 1.1"D



198694

Includes: Alligator clip, ground test lead, spare probe tip and batteries

Part No.	Model No.	1	10
192591	DM73A	$35.49	$31.99
198694	DM73B	49.95	44.95

30-Day Money-Back Guarantee

If you're not satisfied we'll take it back!
Details on page 181

7-Function Multimeter

2000-Count



- Unique voltage Safety Tester™
- 7 function/22 ranges & 6 range volt tester
- Large 17mm (.67") display
- Resolution: 0.1mV maximum
- **DC voltage ranges:** 200mV – 1000V
- **AC voltage ranges:** 200V – 750V
- **DC current ranges:** 200µA – 10A
- **Resistance ranges:** 200Ω – 20MΩ
- Safety tester: 6, 12, 24, 50, 110 and 220 volts
- Diode test and continuity beeper
- Size: 6.1"L x 2.8"W x 1.3"H
- One-year warranty

SALE

Part No.	Model No.	1	10	25
192647	10XL	$39.95	$35.95	$32.95

8-Function Multimeter

2000-Count



- 8 functions/30 ranges
- Resolution: 0.1mV maximum
- **DC voltage ranges:** 200mV – 1000V
- **AC voltage ranges:** 200mV – 750V
- **DC/AC current ranges:** 200µA – 10A
- **Resistance ranges:** 200Ω – 2000Ω
- Logic: TTL, up to 20MHz, pulse width >25ns
- Diode test and continuity beeper
- Size: 6.1"L x 2.8"W x 1.3"H
- One-year warranty

Part No.	Model No.	1	10
192621	15XL	$59.95	$54.95

8-Function Multimeter

3200-Count



- 8 functions/26 ranges
- Large digital and analog bar graph display
- Long 1000 hour battery life with auto off for power saving
- Resolution: 0.1mV maximum
- **DC voltage ranges:** 320mV – 600V
- **AC voltage ranges:** 3.2V – 600V
- **DC current ranges:** 320µA – 10A
- **AC current ranges:** 320µA – 10A
- **Resistance ranges:** 320Ω – 32MΩ
- **Capacitance ranges:** 32µF – 32mF
- Diode test and continuity beeper
- Data hold
- Size: 6.1"L x 2.8"W x 1.3"H
- One-year warranty

Part No.	Model No.	1	10
192612	35XL	$64.95	$58.49

8012A 2000-Count Multimeter

The Fluke 8012A is a portable, bench-type, digital multimeter with 3½ digit liquid crystal display(LCD).



- Resolution: 100µV maximum
- **DC voltage ranges:** 200mV – 1000V
- **AC voltage ranges:** 200mV – 700V
- **DC/AC current ranges:** 20µA – 2A
- **Resistance ranges:** 2Ω – 20Ω (low range) 200Ω – 20MΩ
- **Conductance ranges:** 2µS – 200nS
- Size: 7.5"W x 9.6"D x 2.5"H
- Weight: 2.6 lbs.

Part No.	Model No.	1	10
203801	Fluke 8012A	$199.95	$189.95

METEX® 2000-Count Multimeter

0.5" Digit Height • LCD Readout



- Resolution: 100µV maximum
- **DC voltage ranges:** 200mV – 100V
- **AC voltage ranges:** 200mV – 750V
- **DC/AC current ranges:** 20µA – 20A
- **Resistance ranges:** 200Ω – 20MΩ
- Auto zeroing
- Input impedance: 10MΩ
- Overload protection: 1000VDC/750VAC
- See page 108 for compatible leads (P/Ns: 77745, 77770, 21856, 21864)
- Size: 3.5"W x 1.3"D x 6.8"H
- Weight: 1.2 lbs.
- One-year warranty

Includes: Probes, carrying case, manual & 9V battery

Part No.	Product No.	1	10	50
27115	M3800	**$39.95**	**$35.95**	**$32.49**

METEX® 2000-Count Multimeter w/ RS-232 and Analog Bar



- 3½-digit LCD (.65" digit height) with analog bar
- Data hold
- Computer interface (RS-232C); DB9M/F cable w/ DOS/Windows® software (3.5" diskette)
- Resolution: 100µV maximum
- **DC voltage ranges:** 200mV – 1000V
- **AC voltage ranges:** 200mV – 750V
- **DC/AC current ranges:** 2mA – 20A
- **Resistance ranges:** 200Ω – 2000MΩ
- **Frequency ranges:** 2kHz – 2MHz
- Diode, logic test and continuity test
- One-year warranty
- Size: 3.0"W x 1.5"D x 7.2"H • Weight: 1.8 lbs.

Includes: Manual, probes, 9V battery and software

Part No.	Product No.	1	10	25
155483	ME-21	**$59.95**	**$53.95**	**$44.95**

2000-Count Multimeters w/ RS-232, Analog Bar and Temperature



155475

- 3½-digit LCD (.65" digit height) with analog bar
- Data hold
- Computer interface (RS-232C); DB9M/F cable with DOS/Windows® software (3.5" diskette)
- True RMS (P/N 155491 only)
- Resolution: 100µV maximum
- **DC voltage ranges:** 200mV – 1000V
- **AC voltage ranges:** 200mV – 750V
- **DC/AC current ranges:** 2mA – 20A
- **Resistance ranges:** 200Ω – 2000MΩ
- **Frequency ranges:** 2kHz – 20MHz
- **Temperature:** -40˚C to +1200˚C @ 1˚C resolution
- Diode, transistor h_{FE} logic test and continuity test • One-year warranty
- Size: 3.0"W x 1.5"D x 7.2"H • Weight: 1.9 lbs.

Includes: Operating manual, probes, K-type thermocouple, 9V battery and software

Part No.	Product. No.	1	10	25
155475	ME-22	**$79.95**	**$69.95**	**$62.95**
155491	ME-22T (true RMS)	**89.95**	**79.95**	**71.95**

2000-Count Multimeter w/ RS-232 & Dual Display



- Dual displays for comparative measurements
- 3½-digit LCD w/ 2000 counts (.65" digit height)
- Auto/min/max/data hold function
- Resolution: 100µV maximum
- **DC voltage ranges:** 200mV – 1000V
- **AC voltage ranges:** 200mV – 750V
- **DC/AC current ranges:** 2mA – 20A
- **Resistance ranges:** 200Ω – 2000MΩ
- Tests continuity, diode, transistor h_{FE}, frequency, capacitance and temperature
- One-year warranty
- Size: 3.2"W x 1.2"D x 7.1"H • Weight: 1.8 lbs.

Includes: PC interface cable, probes, temperature probe, manual, software and 9V battery

Part No.	Product No.	1	10	25
160813	M3640D	**$99.95**	**$89.95**	**$79.95**

4000-Count Multimeter w/ RS-232, Temperature & Autorange



- 3¾-digit LCD (⅝" digit height)
- Computer interface (RS-232C) w/ software (3.5") and cable
- Resolution: 100µV maximum
- **DC voltage ranges:** 400mV – 1000V
- **AC voltage ranges:** 400mV – 750V
- **DC/AC current ranges:** 400µA – 20A
- **Resistance ranges:** 400Ω – 40MΩ
- **Temperature:** -40˚C to +1200˚C
- Diodes and continuity • Data hold switch
- Measures transistor h_{FE}, frequency, and capacitance
- Autoranging all scale settings • One-year warranty
- Size: 3.3"W x 1.8"D x 7.2"H • Weight: 1.8 lbs.

Includes: Manual, software, RS-232 interface cable, temperature probe and probes

Part No.	Product No.	1	10	25
117372	M3850D	**$109.95**	**$99.95**	**$89.95**

4000-Count Multimeter w/ RS-232, Dual Display, Inductance & True RMS



- Dual displays for comparative measurements
- 3¾-digit LCD (⅝" digit height)
- True RMS
- Resolution: 100µV maximum
- **DC voltage ranges:** 400mV - 1000V
- **AC voltage ranges:** 400mV – 750V
- **DC/AC current ranges:** 400µA – 20A
- **Resistance ranges:** 400Ω – 40MΩ
- **Temperature:** -40˚C to +1200˚C; 1˚C resolution • Weight: 1.9 lbs.
- Measures inductance, capacitance, transistor h_{FE} and frequency
- Computer interface (RS-232C) w/ software & cable
- Autoranging all measurement settings
- Size: 3.3"W x 1.8"D x 7.2"H • One-year warranty

Includes: 9V battery and software

Part No.	Product No.	1	10
137461	M3860D	**$139.95**	**$125.95**

20,000-Count Multimeter w/ RS-232 & Multi-Display



- ⅝" digit height • LCD readout
- Multi-display: 4 simultaneous displays for relative and comparative measurements
- Resolution: 10µV maximum
- **DC voltage ranges:** 200mV – 1000V
- **AC voltage ranges:** 200mV – 750V
- **DC/AC current ranges:** 2mA – 20A
- **Resistance ranges:** 200Ω – 20MΩ
- **Capacitance ranges:** 20nF – 200µF
- **Frequency ranges:** 20kHz – 2MHz
- Diode/continuity: measures forward resistance of a semiconductor junction in kΩ a test current of approximately 1mA
- Measures transistor h_{FE}
- Size: 3.3"W x 1.5"D x 7.5"H • Weight: 2.0 lbs.
- LCD size: 2.4"W x 1.3"H • One-year warranty

Includes: Software, test leads, PC interface, manual and 9V battery

Part No.	Product No.	1	10
144872	M4640A	**$139.95**	**$125.95**

MASTECH Our Lowest Priced 20,000-Count Multimeter



- Extra-large digits (0.8" digit height)
- Resolution: 10µV maximum
- **DC voltage ranges:** 200mV – 1000V
- **AC voltage ranges:** 2V - 700V
- **DC/AC current ranges:** 2mA – 10mA
- **Resistance ranges:** 200Ω – 200MΩ
- **Capacitance ranges:** 200pF – 20µF
- Measures transistor h_{FE} & continuity
- Hold button • Auto power off
- Size: 3.9"W x 1.9"D x 8.0"H
- Weight: 1.5 lbs. • One-year warranty

Includes: Protective boot, 9V battery, probes and manual

Part No.	Product No.	1	10	25
136590	MY65	**$69.95**	**$62.95**	**$56.95**

2000-Count Multimeters w/ Adjustable Viewing Angle



Tiltable Screen



197958



197966

- Adjustable 1" LCD display for better angle
- Auto power off
- Improper test lead position alarm alerts user if position does not match function
- Accuracy: ±0.5% for DCV
- Resolution: 100uV maximum
- **DC voltage ranges:** 200mV – 1000V
- **AC voltage ranges:** 200mV – 750V
- **DC/AC current ranges:** (P/N 197958) 20uA – 10A; (P/N 197966) 20mA – 20A
- **Resistance ranges:** 200Ω – 200MΩ
- Tests diode, continuity & transistor h_{FE}
- Size: 3.5"W x 1.3"D x 7.3"H
- Weight: 0.6 lbs.

197966:

- **Capacitance ranges:** 2nF – 20uF
- **Temperature:** -40˚ to 1000˚C

Includes: Test leads, protective holder, 9V battery and temperature probe (P/N 197966 only)

Part No.	Product No.	1	10	25
197958	MV110	**$38.95**	**$34.95**	**$32.95**
197966	MV120	**68.95**	**61.95**	**58.95**

50,000-Count Digital Multimeters with Analog Bar Graph

BK5360 & BK5380



- BK5380 has better accuracy and resolution in some functions
- True RMS reading
- Auto and manual ranging
- Large LCD display provides easy readability, all test parameters in clear view (0.55" digit height)
- AC/DC voltage protection
- Continuity and diode testing
- CE safety approved
- Basic DC accuracy: BK5360 – 0.1%; BK5380 – 0.025%
- **DC voltage:** 500mV to 1000V (10uV to 100mV resolution)

SALE

185199

BK PRECISION

	BK5360	BK5380
	Ranges/Resolution	Ranges/Resolution
AC Voltage	500mV–750V/100µV–1V	500mV–750V/10µV–100mV
DC Current	5mA–10A/100nA–1mA	500µA–10A/10nA–1mA
AC Current	5mA–1A/1µA–10mA	500µA–10A/10µA–1mA

- **Resistance**: 500Ω – 50MΩ (10mΩ – 1kΩ res.)
- **Capacitance**: 50nF – 50mF (10pF – 10µF res.)
- **Frequency**: 0.6Hz – 500kHz
- **Duty cycle** (BK5360 only)
- Size: 7.5"L x 3.2"W x 1.6"H • Weight: 1.5 lbs.

Includes: Probes and manual

Part No.	Product No.	1	10	25
185199	BK5360 ~~Reg. $209.95~~	$79.99	$71.99	$64.99
185201	BK5380 ~~Reg. $279.95~~	149.95	129.95	119.95

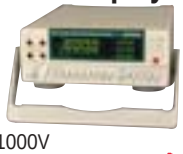
20,000-Count Benchtop Digital Multimeter



- $4^1/_2$-digit display, 5-digit green LCD
- DC accuracy: 0.05%
- Full overload protection
- Resolution: 100µV max.
- **DC voltage ranges:** 200mV - 1000V
- **AC voltage ranges:** 200mV – 750V
- **DC/AC current ranges:** 2mA – 10A
- **Resistance ranges:** 200Ω – 20MΩ
- **Frequency** measurement up to 200kHz
- Continuity check with beeper
- Data hold, diode check, transistor h_{FE} measurement available • True RMS in AC range
- One-year manufacturer's warranty
- Size: 9.9"L x 9.8"W x 3.6"H • Weight: 6.1 lbs.

Part No.	Product No.	1	10	25
132564	DM441	$229.95	$214.95	$199.95

20,000-Count Benchtop Multimeter w/ RS-232, Analog Bar & 4 Displays



- Automatic polarity indicator
- 1-2 readings per second
- DC accuracy: 0.1% +5 digits
- 10 reading storage & compare
- Resolution: 10µV maximum
- **DC voltage ranges:** 200mV – 1000V
- **AC voltage ranges:** 200mV – 750V
- **DC/AC current ranges:** 2mA – 20A
- **Resistance ranges:** 200Ω – 20MΩ
- **Frequency ranges:** 20kHz – 20MHz
- MIN., MAX., AVE., relative functions
- Logic, diode, transistor h_{FE} and continuity test
- Size: 11.2"L x 8.2"W x 3.2"H • Weight: 7.5 lbs.

METEX®

Includes: Manual, power cable, probes and software

Part No.	Product No.	1	10
166852	MXD4660A	$249.95	$224.95

4,000-Count Digital Multimeters

TPI digital meters are field test proven to provide the specific needs for the troubleshooter.

- Carrying pouches provided with clamp meters
- Protective boots provided with multimeters
- Three-year warranty

Includes: Test leads, batteries and manual

Three-year Warranty!

† size with protective boot



Triple display & True RMS



Pocket-sized with easy line distortion checking (see AC line Separator, below)



Applications with True RMS and AC / DC current (see AC line Separator, below)

Features		TPI 183	TPI 255	TPI 296
Digit Height		0.75"	0.45"	0.43"
AC/DC Volts		400mV to 1000V (750VAC)	4V to 600V	40V to 750V
Basic DC Accuracy		0.3%	0.3%	0.75%
AC/DC Amps		40µA to 10A	40A & 400A/NA	40A to 700A
HDR Mode		N/A	N/A	YES
True RMS		YES	N/A	YES
Resistance		400Ω to 40MΩ	400Ω to 40MΩ	400Ω to 40kΩ
Capacitance		10µF to 10000µF	N/A	N/A
Frequency		200Hz to 200kHz	N/A	1kHz & 10KHz
Diode Test/Continuity		YES	BUZZER	YES
Analog Bar Graph		YES	N/A	YES
Auto Range/Data Hold		YES/YES	YES/YES	YES/YES
Min./Max./Peak		(Min./Max. only)	YES	YES
Sleep Mode/Auto-Off		YES/N/A	N/A/YES	YES/N/A
RS232 (cable & software)		Included	N/A	N/A
Dimensions (L"xW"xH")		7.75 x 3.75 x 2.25†	7.5 x 3.0 x 1.5	9.0 x 3.25 x 1.75
CE or cULus Listed		cULus,UL3111-1,CE	cULus,UL3111-1,CE	cULus,UL3111-1,CE
Part Number		163011	163029	163037
Price	1 ea.	$189.95	$89.95	$189.95
	10 ea.	$169.95	$79.95	$169.95

Multi-Range Clamp Meter



- 3¾-digit; max. reading of 3999
- Resolution: 100mV maximum
- **Current ranges:** 399.9A, 600A (AC)
- **Voltage ranges:** 399.9VDC, 750VAC
- **Resistance range:** 3999Ω
- 0.5" digit height
- Tear drop jaws 1.3"(32mm) opening for ease of use
- Data hold and peak hold functions
- Compatible with P/N 162325, bottom
- Size: 8.0"L x 3.3"W x 1.5"D • Weight: 1.0 lb.
- One-year manufacturer's warranty

BelMERIT

Includes: 9V battery, test leads, manual and case

Part No.	Description	1	10
140644	Digital clamp meter	$69.95	$62.95

5-Function Clamp Meter

Wavetek Meterman



- 4000-count display with bar graph
- Resolution: 0.1mV maximum
- **DC/AC voltage range:** 600V
- **AC current range:** 400A
- **Resistance range:** 400Ω
- Continuity test • Auto off
- 1.0" max conductor size • Autoranging
- Compatible with P/N 162325 AC line separator, right
- Data hold • One-year warranty
- Size: 11.4"L x 6.6"W x 2.1"D

Part No.	Model No.	1	10
192583	AC40A	$74.95	$67.49

Mini DC/AC Current Clamp Meter/Multimeter



- Bright 1/2" LCD display with DATA HOLD
- 0.5" digit height
- Compatible with P/N 162325, below
- Size: 7.1"L x 1.9"W x 1.4"H
- Weight: 0.9 lbs.
- One-year warranty

ACA*	20A, 200A	±1.2% + 5d
DCA	200A	±1.2% + 5d
ACV*	500V	±1.0% + 2d
DCV	200V	±0.8% + 1d
Resistance	200Ω	±1.2% + 1d
*Frequency Response		40-400Hz
Zero Adjust		External knob for DCA

Requires: 9V battery not included (P/N 151095, pg 168)

Includes: Test leads, manual and case

Part No.	Description	1	10
115756	Mini DC/AC clamp meter	$119.95	$107.95

15A AC Line Separator for AC Current Clamp Meters

MASTECH

3-Prong US-Type Plug



- Maximum overload: 250VAC @ 15A
- X1 and X10 clamp areas
- Convenient 0.1"Dia. meter tip test points for neutral/earth/line
- Socket compatible with US & European connectors
- Size: 6.0" Lx1.9" W x 1.4"T • One-year warranty

Part No.	Description	1	10	25
162325	3-prong separator	$10.95	$9.95	$8.95

Digital LCR Meter



- 3½-digit display (0.5" digit height)
- **Inductance ranges:** 200µH to 200H
- **Capacitance ranges:** 200pƒ to 2000µƒ
- **Resistance ranges:** 2mΩ to 20MΩ
- Dissipation factor measurement
- Size: 6.7"L x 3.3"W x 1.4"D
- Weight: 1.1 lbs.
- One-year warranty

Includes: Test leads and 9V battery

Part No.	Description	1	10	25
127538	LCR meter	$139.95	$125.95	$118.95

Passive Component LCR Meter

EXTECH INSTRUMENTS



198678

- Measures L, C, and R with secondary parameter Q, D or R; both are displayed
- Accuracy of 0.7% for L & C, 0.5% for R
- **Inductance ranges:** 2000.0uH to 2000.0H
- **Capacitance ranges:** 2000.0pF to 2000.0uF
- **Resistance ranges:** 20.000Ω to 20.000MΩ
- Test frequencies of 120Hz and 1kHz
- Dissipation Factor (D) (with C) reading: 0 to 0.9999
- Quality (Q) reading: 0 to 9999
- Selectable parallel or series equivalent circuit
- Set HI/LO limits, absolute or percentage
- 4½-digit backlit LCD display
- Bidirectional RS-232 port with optional software
- Max./Min./Avg. recording with auto power off
- Size: 7.6"L x 3.6"W x 2.1"H
- Weight: 0.8 lbs.

Includes: Test leads, alligator clips, 9V battery and holster

Part No.	Description	1	10
198678	LCR Meter	$178.95	$160.95
100845	9VDC @ 200mA adapter	4.25	3.75

Digital Light Meter



- Measures in Lux and footcandle ranges
- Range: Lux – 0 - 50,000 Lux (3 ranges); footcandle – 0 - 5,000 Fc (3 ranges)
- Analog output connectors for external recording
- Separate light sensor for optimum location sampling
- 0.5" digit height
- Dimensions (sensor probe): 3.2"L x 2.2"W x 0.5"H
- Weight: 0.9 lbs.
- One-year warranty

Part No.	Description	1	10
131764	Digital light meter	$99.95	$89.95

50mV/50A Current Shunt



- Current ranges: 0 to 50A
- Accuracy: 0.8% ±0.2mV
- Output ratio: 1mV/1A
- Max. current: 100A
- Size: 5.3"L x 1.2"W x 1.4"H

Part No.	Description	1	10	25
162309	Current shunt	$24.95	$22.49	$19.95

Indoor/Outdoor Temperature Alarm

EXTECH INSTRUMENTS



- Large 1.5" LCD display
- Displays indoor/outdoor temperature from -58˚ to 158˚F
- Single point alarm (external sensor): set alarm when temperature is above Hi-set or below low set point
- Dual point alarm (external sensor): set alarm when temperature is either outside of or within two set points
- Accurate to 1.8˚F with 0.1˚F resolution
- Audible alarm and red/green LED indicators
- Size: 2.75"L x 2.75"W

Includes: 10 ft. weatherproof outdoor sensor, built-in stand, AAA battery and hardware

Part No.	Description	1	10	25
198037	Temperature alarm	$18.95	$16.95	$15.95

Temperature/Humidity Meter with Min/Max Memory



EXTECH INSTRUMENTS

- Displays (%) relative humidity and temperature (˚C/˚F) simultaneously
- Min./Max. memory on both relative humidity & temperature with reset function
- Temperature range: -10˚C to 60˚C (14˚F to 140˚F);
- Humidity range: 10% to 99%
- 1" high readout • Size: 4.3"L x 3.9"W x 0.8"Thick

Includes: Built-in tilt stand, AAA battery, and wall mounting bracket

Part No.	Description	1	10	25
198045	Temp./humid meter	$38.95	$34.95	$32.95

Temperature/Humidity Meter with Clock & Min/Max Memory



EXTECH INSTRUMENTS

- Large bright LCD displays for temperature, humidity, and time
- Temperature range: -10˚C to 60˚C (14˚F to 140˚F)
- Humidity range: 10 to 85%
- Clock function displays 12 hour time with AM/PM indication or 24 hour time
- Min./Max. memory function with reset for temperature and humidity
- Size: 4.3"L x 2.8"W x 0.8"Thick

Includes: Built-in tilt stand, AAA battery and wall mounting bracket

Part No.	Description	1	10	25
198053	Temp/humid meter	$28.95	$25.95	$24.49

Digital Stopwatch/Up-Down Timer/Alarm/Calendar



- Water resistant housing, lithium battery, and 39" (1m) neckstrap
- Large display provides timing to 1/100th of a second
- Timing capacity: 9 hours, 59 minutes, 59.99 seconds
- Accurate to ±5 seconds/day
- Built-in memory recalls up to 10 laps
- Clock function (12/24hr) features programmable alarm with hourly chime
- Built-in calendar displays day, month, and date
- Countdown timer function features input ranges from one minute to 9 hours, 59 minutes

Part No.	Description	1	10	25
198029	Stopwatch/timer	$28.95	$25.95	$24.49

Mini Infrared Thermometer



- Measures -4˚F to 608˚F (320˚C) without contact
- Resolution of 1˚
- ˚F and ˚C selectable
- Large backlit display (0.36" digit height)
- Built-in laser pointer for better aim
- Fixed emissivity covers 90% of surface applications
- Narrow field of view – distance at 6" measures 1" target • Auto data hold

EXTECH INSTRUMENTS

Includes: 9V battery

Part No.	Description	1	10
170421	Infrared thermometer.....	$109.95	$99.95

High Voltage AC/DC Test Probe



- Maximum voltages: DC: 40kV, AC: 40kV peak, 28kVRMS
- Accuracy: DC: ±1.5%, AC: ±5%
- Meter requires 10MΩ input impedance
- Input/output impedance: 1,000MΩ/1.1MΩ • Cable length: 39"
- Probe length: 14" • Weight: 0.8 lbs.

Part No.	Description	1	10
132290	High voltage test probe	$89.95	$80.95

TRIPLETT AC Voltage Detector



- Test for the presence of AC voltage on outlets, circuit breakers, extension cords, light switches, power tools and AC motors
- Non-contact voltage probe • AC ranges: 50V–600V
- Visual and audible alerts • Pocket clip
- Size: 5.4"L x 0.65"W x 0.60"H

Part No.	Description	1	10
154907	AC voltage detector	$17.95	$16.25

AC/DC Circuit Tester



This tester will help you determine if a typical 3-wire outlet is 110V or 220V. Light will glow if neutral and hot lines are probed. A brighter glow will let you know if the outlet is 220V.

- Voltage ranges: 90V – 800V
- Size: (unit) 2.7"L x 0.7"W x 0.5" Thick

Part No.	Description	1	10	50
189309	Circuit tester	$1.95	$1.79	$1.59

For replacement batteries see page 168



6-Step Drill Tool

3/16" to 1/2"



Drill multiple holes in thin material with the same bit, faster and easier. Each bit does the work of many drill bit sizes. You can drill holes in most materials such as plastic, metal, and wood up to 1/8" thick. No center punching on most sizes. Made of high-speed steel.

- Drill size: 3/16" to 1/2"

Part No.	Description	1	10	25
172401	Step drill	$9.95	$8.95	$7.95

Mini-Drill and Stand

This Mini Drill is excellent for drilling through circuit boards and protoboards. The drill comes with an array of drilling, grinding and sanding attachments. Drill stand is designed to function like a drill press.



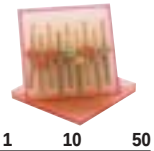
Shown w/ drill (26702) & stand (26711)

Part No.	Description	Wt. (lbs.)	1	10	25
26702	MS398 drill	0.8	$29.95	$26.95	$23.95
26711	MS399 stand	1.8	19.95	17.95	15.95
159054	6-pc engraving bits set		7.85	7.05	7.05

9-Piece Assorted Drill Bit Kit

- Variety of sizes: .014" to .126"
- Each kit will vary in contents of bit sizes
- Shank diameter: .125"

Includes: Plastic case

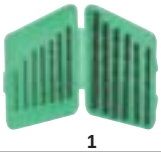


Part No.	Description	1	10	50
131676	9-piece drill bit kit	$9.95	$8.95	$7.95

13-Piece Drill Bit Kit

- Sizes: 1/16", 5/64", 3/32", 7/64", 1/8", 9/64", 5/32", 11/64", 3/16", 7/32", 15/64", 1/4"

Includes: Plastic case



Part No.	Description	1	10
202850	13-piece drill bit kit	$12.95	$11.65

PC Board Drill Bits

- Reconditioned carbon steel bits
- High quality long lasting cutting edge
- Use for drilling holes in glass PC boards
- Shank diameter: .125"



SALE

Part No.	Drill Dia.	No.	Application	1	10	100
16619	.021"	75	Miscellaneous	$1.69	$1.25	$.89
16580	.040"	59	Plated thru holes	1.95	1.49	.99

T-Handle Reamer Tool

Excellent for aluminum chassis work

- For enlarging starter holes on panel mount components from 1/8" to 1/2" diameter
- T-handle for easy rotation of tool
- Size: (handle) 3.3"L; (tool) 5.3"L



SALE

Part No.	Description	1	10	25
151749	Reamer tool	$8.59	$7.79	$6.95

Vac Tweezers

Pick & place small parts of all kinds: glass slides, coins, optics, SMDs, film, etc.

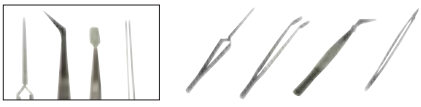
- Size: 2.9"L x 0.6"W
- One-year warranty



Includes: 5 pads sizes 0.14" to 0.4"; 5 straight tips and 2 pieces 45° angle tips

Part No.	Description	1	10
88268	Vacuum pick & place kit	$34.95	$34.49

4-Piece Steel Tweezer Set

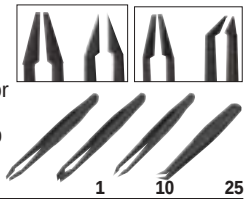


- 4 styles of stainless steel tweezers, one self-locking
- Ideal for picking up small components in hard-to-reach places

Part No.	Description	1	10	50
10735	4-piece tweezer set	$7.95	$6.95	$5.95

4-Piece Conductive SMD Tweezer Set

- 4 types of tweezers: fine point, flat head for 4mm SMD chip device, flat head for 8mm SMD chip device, sharp angled tip
- Each is 4.5" long



Part No.	Description	1	10	25
172638	4-piece tweezer set	$11.95	$10.95	$9.95

PLCC Surface Mount and DIP IC Extractors

SALE



16766



16838

- Size: 4.0"L x 2.0"W (both)

16766: PLCC IC extractor **16838:** DIP IC extractor

Part No.	Product No.	1	10	100
16766	HT103B	$3.95	$3.55	$3.19
16838	HT103A	1.49	1.25	1.09

CHIPQUIK SMD Removal Kit

- Uses simple equipment and materials for application and clean-up
- Quick and easy to use
- Potential damage to PC boards is eliminated
- 2.5' of CHIPQUIK® material removes 1250-1500 SMD pins



Part No.	Description	1	10
141305	SMD removal kit	$19.95	$18.95

CHIPQUIK SMD 2000 Removal System

Complete Solder/Desolder Rework Kit

- Removal alloy, solder paste, 3' solder, paste flux, liquid flux remover/cleaner, handi vac, 2 acid brushes, precision tweezers, six 4" x 4" cleaning wipes, 10 swabs, 6 alcohol pads, SMD removal/clean up instructions, stainless steel probe kit & 5' solder wick



Part No.	Description	1	10
208055	SMD removal system	$109.95	$99.95

IC Pin Straightener

Straighten bent pins safely and easily with Jameco's IC pin straightener.



- Straightens 8/14/16/18/20/24/28/40/42-pin ICs
- Materials: black plastic • Size: 3.3"L x 1.5"W x 0.4"H

Includes: Ground terminal

Part No.	Description	1	10	100
99362	IC straightener	$6.95	$6.25	$5.59

2-Piece Electronic Inspection Set

- Bent mirror tool (0.1"Dia. x 6.8"L) – for visual inspection
- Sharp metal pick (0.1"Dia. x 6.0"L) – great for PCB re-work



Part No.	Description	1	10	25
72514	Electronic inspection	$6.95	$6.25	$5.59

Trimmer Potentiometer Adjustment Pocket Tool

- Glass filled body
- Stainless steel blade
- Color: black
- Size: 5.2"L

SALE



Part No.	Description	1	10	100
153314	Trimmer tool	$1.09	$.99	$.89

Crimp Pin Extraction Tools

- Easily extract 0.093" locking pins from connectors
- Heavy duty metal
- Precision design • Length: 5"



131887

Part No.	Prod. No.	Description	1	10
131887	HT319C	Male tool for 42729	$9.95	$8.95
131879	HT319B	Female tool for 42649	9.95	8.95

D-Sub Pin Insertion/ Extraction Tool

- Insertion/extraction tool: red/white plastic body; exchangeable tips



Part No.	Description	1	10	100
19094	Tool	$2.95	$2.49	$2.15

Pocket Swivel Deburring Tool

- Swivel deburring tip rotates to match burred surface with only slight pressure
- Heat treated alloy steel blade
- Pen type for pocket convenience
- Aluminum handle • Size: 5.5"L



Part No.	Description	1	10	25
172902	Deburring tool	$4.95	$4.49	$3.95

Automatic Center Punch Tool

Adjustable

- Precision instrument
- Alloy steel point
- Knurled steel body
- Size: 5.0"L x 0.5"Dia.



SALE

Part No.	Description	1	10	50
160282	Cntr punch tool	$4.95	$4.49	$3.95

10-Piece Hex Key Wrench Sets

72469 includes: 1.5, 2, 2.5, 3, 4, 5, 5.5, 6, 8, and 10mm wrenches

72477 includes: 1/16, 5/64, 3/32, 1/8, 5/32, 3/16, 7/32, 1/4, 5/16 and 3/8" wrenches

SALE



72469

Part No.	Description	Wt. (lbs.)	1	10
72469	Metric hex key set	0.6	$1.95	$1.49
72477	SAE hex key set	0.5	1.95	1.49

8-Piece Fold-Up TORX Key Set

- 3.7" long handle
- TORX bits: T9, T10, T15, T20, T25, T27, T30, T40
- Size: 3.7"L x 1.2"W

SALE



Part No.	Description	1	10	100
176006	TORX key set	$9.95	$8.95	$7.95

Retaining Ring Pliers

Internal/External

- Hi-carbon tempered steel
- Black oxide finish
- Vinyl grip
- Length: 6"
- For 0.47" to 0.98" diameter retaining rings

SALE



Part No.	Description	1	10	25
177551	Retaining ring pliers	$9.95	$8.95	$7.95

Groove Joint Pliers

- Drop forged steel
- Heat treated
- Milled jaws
- Vinyl grips
- Polished head
- Length: 10"
- Weight: 0.9 lbs.

SALE



Part No.	Description	1	10	50
177578	Groove pliers	$7.95	$6.95	$5.95

Linesman Pliers

- Drop forged steel
- Heat treated
- Milled jaws
- Vinyl grips
- Polished head
- Length: 8"
- Weight: 0.9 lbs.

SALE



Part No.	Description	1	10	50	100
177594	Linesman pliers	$6.95	$6.25	$5.59	$4.95

For our selection of tool kits, see page 123



Cordless Screwdriver

- Adjustable handle can be used folded or unfolded
- Thumb switch for reverse and forward action
- No load speed: 180rpm
- Clutch operating torque from 4 to 21kg/cm
- 3.6V rechargeable battery
- Size: 10.5"L x 1.5" Dia.
- Weight: 1.6 lbs.

SALE



Includes: 6VDC @ 300mA power supply and screwdriver bits (slotted and Phillips)

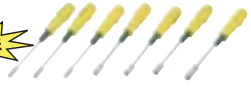
Part No.	Description	1	10
176680	Screwdriver	$39.95	$35.95

7-Piece Hex Driver Tool Set

- Size of drivers: 6.3"L

Includes 1 ea.: 3, 3.5, 4, 4.5, 5, 5.5 and 6mm

SALE



Part No.	Description	1	10
148929	Hex nut driver tool set	$8.95	$7.95

4-Way Master Key Chuck Tool

- Opens a variety of chucks (P/N 172911 opens 86 types); (P/N 172929 opens 127 types)
- Opens most chucks from manufacturers such as Cooper, Milwaukee, Craftsman, Black and Decker, and Rohm



172911:
- Chuck size: 1/4" to 3/8"
- Wt.: 0.3 lbs.

172929:
- Chuck size: 1/2" to 3/4"
- Wt.: 0.6 lbs.

SALE

Part No.	Description	1	10	25
172911	Opens 86 chucks	$10.95	$9.85	$8.89
172929	Opens 127 chucks	11.95	10.75	9.69

Xcelite Pliers



6" 146712 | 4" 146739 | 5" 146721

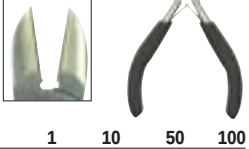
- Spring returns

146712: Micro series wire cutter – flush; 6"
146739: Diag. wire cutter – semi-flush; 4"
146721: Long needle nose – flat; 5"

Part No.	Product No.	1	10	50	100
146712	170M	$5.95	$5.35	$4.79	$4.29
146739	MS54V	13.95	12.95	11.95	10.95
146721	MN7776V	16.95	15.95	14.95	13.95

4" Diagonal Pliers

- Drop forged steel
- Heat treated
- Vinyl grips
- Spring return action
- Polished head
- Length: 4"



Part No.	Description	1	10	50	100
179901	Diagonal pliers	$4.95	$4.49	$3.95	$3.59

6-Piece Electronic Screwdriver Set

- Three slotted: 0.09"Dia. x 6.6"L, 0.12"Dia. x 6.6"L, 0.16"Dia. x 9.6"L
- Three Phillips: No.0, 0.12"Dia. x 6.64"L; No.1, 0.16"Dia. x 9.61"L; No.2, 0.09"Dia. x 6.65"L



Part No.	Description	1	10	50
99451	6-pc. screwdriver set	$7.95	$6.95	$6.25

6-Piece Screwdriver & Pliers Set

- One micro cutting nipper
- One micro flat nose pliers
- Two slotted: 0.12"Dia. x 9.61"L; 0.09"Dia. x 7.64"L
- Two Phillips: No.0, 0.12"Dia. x 9.61"L; No.2, 0.09"Dia. x 7.64"L



Part No.	Description	1	10	50
99565	Screwdriver/plier	$14.95	$13.49	$11.95

6-Piece Precision Screwdriver Sets

34041 includes: 3/64", 1/16", 5/64", 5/32", 1/8" and 9/64" slotted screwdrivers

34059 includes: 3/64"#0, 1/16"#0, 5/64"#0, 3/32"#0, 1/8"#1 and 9/64"#1 Phillips screwdrivers



34041

Part No.	Description	1	10	50
34041	Slotted screwdriver set	$3.95	$3.49	$2.95
34059	Phillips screwdriver set	3.95	3.49	2.95

5.3" Flat and Half-Round Long Nose Pliers

- Stainless steel
- Spring return
- Durable rubber handles
- 5.3" length w/ 1.4" plier nose
- **35473/35490:** Knurl jaws
- **195531:** Smooth jaws

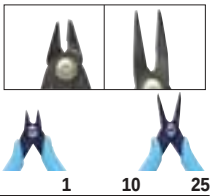


35473

Part No.	Description	1	10	50	100
35473	Flat long nose	$4.95	$4.49	$3.95	$3.49
195531	Flat long nose	4.95	4.49	3.95	3.49
35490	Half round	4.95	4.49	3.95	3.49

Xcelite Shearcutter/Plier Tool Set

- Improved handle grip for control and comfort
- Non-glare black finish carbon steel
- Size (plier): 5.6"L
- Size (shearcutter): 5.2"L



Part No.	Description	1	10	25
152055	Cutter/plier set (S2K)	$15.95	$14.95	$13.95

30-Day Money-Back Guarantee

If you're not satisfied we'll take it back!
Details on page 181

Precision 5-Piece Stainless Steel Plier Set



- Spring return
- Insulated handles

Includes: One 3.5"L micro cutting nippers and one each 4"L micro round nose pliers, long nose pliers, flat nose pliers and bent nose pliers

Part No.	Description	Wt. (lbs.)	1	10	25
73120	5-piece set	0.6	$16.95	$14.95	$13.49

4.3" Diagonal Wire Cutter



- Cuts component wire up to 1.2mm thick
- Stainless steel
- Durable rubber handles
- Jaws are designed for flush cutting
- 4.3"L x 2.1"W with 0.5" cutting blade

Part No.	Description	1	10	50	100
35481	Wire cutter	$4.95	$4.49	$3.95	$3.49

5" Diagonal Wire Cutter



- Cuts component wire up to 1.2mm thick and 0.08mm fine wire
- Insulated handles
- Jaws are designed for flush cutting
- 5.0"L x 1.8"W with 0.5" cutting blade

Part No.	Mfr. Cross Ref. No.	1	10	25
161411	Wire cutter	$6.95	$6.25	$5.59

5" Wire Cutters/Strippers


78991

- Insulated handles
- Spring return
- Tempered steel cutting edge
- Adjustment for wire gauges
- Size: 5.0"L x 3.0"W
- One-year warranty

183003: for 12-24 AWG wire
78991: for 10-30 AWG wire

Part No.	Mfr. Cross Ref. No.	1	10	50	100
183003	JE107	$3.95	$3.49	$2.95	$2.59
78991	HT108	3.95	3.49	2.95	2.59

6.6" Wire Cutter/Stripper

24 AWG Stripper



- Strips and cuts wire as small as 24 AWG
- Insulated grips
- Spring loaded for easy use
- Cutter angled @ 45 degrees for use in tight places
- Size: 6.6"L x 3.0"W

Part No.	Product No.	1	10	50	100
159273	HT1091	$4.95	$4.49	$3.95	$3.59

Automatic Wire Strippers

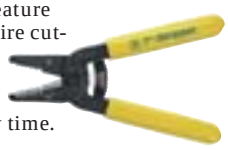

175097

175097: Strips 8-22 AWG wires
- Spring load grip
- Size: 7.0"L x 2.5"W
- Weight: 0.8 lbs.

Includes: Wire stopper for desired strip length
202841: Strips wires from 2mm - 60mm length
- Size: 6.5"L x 3.0"W
- Weight: 0.3 lbs.

Part No.	Description	1	10	25
175097	Auto wire stripper	$14.95	$13.49	$11.95
202841	Auto wire stripper	9.95	8.95	7.95

Standard T5 & T6 Wire Strippers


161200

Quality built strippers feature looping holes, built-in wire cutters, cushioned plastic grips and precision knife-type blades for an accurate easy strip every time.
- Size: 6.0"L x 2.0"W

161200: T-5
- 10-18 AWG solid
- Color: yellow

161218: T-6
- 16-26 AWG stranded
- Color: red

SALE

Part No.	Product No.	Description	1	10
161200	ID45-120	T-5 10-18 AWG	$12.95	$11.49
161218	ID45-121	T-6 16-26 AWG	13.95	12.95

6" Premium T5 & T6 Wire Strippers


161234
161226

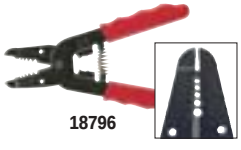
All the benefit of the standard stripper shown above, plus:
- Contoured cushion-grip handles
- Wire size markings, in AWG and mm
- Size: 6.0"L x 2.0"W

161226: T-5
- 10-18 AWG solid

161234: T-6
- 16-26 AWG stranded

Part No.	Product No.	Description	1	10
161226	ID45-215	T-5 10-18 AWG	$15.95	$14.49
161234	ID45-216	T-6 16-26 AWG	15.95	14.49

7-in-1 Wire-Handling Tool

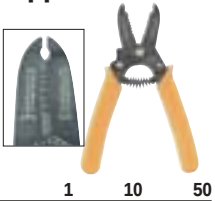

18796

- Wire stripper, wire cutter, steel wire cutter, pliers and wire loop
- Solderless crimping tool
- Scale: mm and inch
- Size: 6.6"L x 3.0"W

Part No.	Prod. No.	Description	1	10	50
18796	HT104	10-18AWG	$4.95	$4.49	$3.95
127861	HT1042	16-26AWG	4.95	4.49	3.95
127870	HT1043	22-30AWG	4.95	4.49	3.95

6.6" Wire Stripper

22-30 AWG



- Wire stripper, cutter, steel wire cutter, and wire loop
- Scale: AWG and mm
- Strips and cuts wires from 20-30 AWG
- Size: 6.6"L x 2.0"W

Part No.	Product No.	1	10	50
159290	HT5023	$8.95	$7.95	$6.95

Nibbling Tool


18809

- Perfect for cutting, trimming, or notching sheet metal up to 18 AWG
- Time-saver when working on prototyping, chassis, and circuit boards
- Minimum .375" hole required
- Size: 7.8"L

Part No.	Prod. No.	Description	1	10	25
18809	HT204	Nibbling tool	$8.95	$7.95	$6.95
29330	HT204B	Replacement bit	4.95	4.49	3.95

Rotary Coax Cable Strippers

2 and 3 Blade


159118

159118 (3 Blade): Two settings RG58/59/62
- For cable sizes 4-10mm
- Size: 4.2"L x 1.3"W
- Color: black


159185

159185 (2 Blade): Four settings RG58/59/62/174
- For cable sizes 4-12mm
- Size: 3.9"L x 0.7"W
- Color: gray

Includes: Hex key wrench for adjusting blade

Part No.	Product No.	1	10	25
159118	HT312B (3 blade)	$12.95	$11.49	$9.95
159185	HT332D (2 blade)	12.95	11.49	9.95

Coaxial Cable Stripper



- Strips RG58, 59 and 62 cable
- Replaceable blades
- Size: 4.2"L x 0.8"W

Part No.	Description	1	10
73066	3 bladed coax cable stripper	$14.95	$13.49

Impact Punch-Down Tool


175071

- Reversible clip-in blade
- Adjustable (HI-LO) spring-loaded impact mechanism
- Storage bin on handle for spare blade


175089

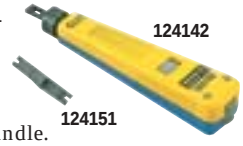
175071: Punch-down tool with blade
- For 66-type terminals
- Size: 5.2"L x 1.5"W x 1.0"H

175089: Punch-down blade
- Blade for 110-type terminals

Part No.	Description	1	10
175071	Tool w/ 66 blade	$39.95	$35.95
175089	Punch-down blade 110	14.95	13.49

Impact Punch-Down Tool

Conforms to AT&T performance specification. Reversible clip-in blade, adjustable spring-loaded impact mechanism and spare storage blade in the handle.


124142
124151

- One-year warranty

124142: For 66-type bifurcated terminals
- Size: 7.0"L x 1.4"W x 1.1"H

124151: Blade for 110-type terminals

Part No.	Description	1	10
124142	Tool with blade	$49.95	$44.95
124151	#110 blade	19.95	17.95

Over 99% of our products are in stock!

We'll Send it Today!

Place your order by 6PM EST for same business day shipment



Telemaster Modular Crimp/Cut/Strip Tool

For RJ11 (6P) and RJ45 (8P) Modular Plugs

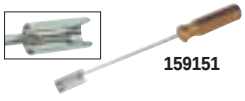


- Repeatable crimp action for consistent high quality connectors
- Size: 6.0"L x 2.0"W
- Weight 0.8 lbs.

Includes: Cut and strip blade

Part No.	Product No.	Description	1	10
161091	ID30-496	Telemaster tool ..	**$41.95**	**$37.95**

BNC Connector Removal Tools



- For deep chassis removal
- Allows access to hard-to-reach places

Part Number	Mfr. Cross Ref. No.	Size	1	10	25
159151	HT2206	6"L	**$14.95**	**$12.95**	**$11.49**
152047	HT2212	12"L	**14.95**	**13.49**	**11.95**

BNC Hex Crimping Tool

RG58/59/62/142

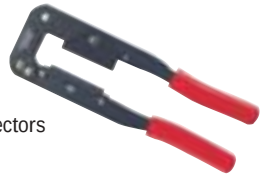




- Crimps BNC connectors to RG58/59/62/142
- Crimps center pin
- Adjustable grip opening
- Insulated grip handles
- Size: 9.0"L x 2.0"W
- Weight: 1.5 lbs.

Part No.	Product No.	1	10	25
159302	HT106D	**$14.95**	**$13.49**	**$11.95**

IDC Connector Crimping Tool



- Crimping distance: 27.5mm to 6mm (with attachment)
- Cushioned red handles
- Crimp insulation displacement connectors
- Use for IDC socket connectors, pg 80
- Size: 9.2"L x 3.0"W
- Weight: 1.1 lbs.

Part No.	Product No.	1	10	25
73251	HT214	**$12.95**	**$11.49**	**$9.95**

Modular Crimping Tool Set



- 8" metal modular crimping tool
- Cuts, strips and crimps
- Crimps RJ11 and RJ45 plugs
- Carrying case: blue hard plastic, 8.0"L x 10.5"W x 2.0"H
- Weight: 2.1 lbs.

Includes: 90 modular plugs,40 pcs. 4P4C, 30 pcs. 6P6C, 20 pcs. 8P8C

Part No.	Product No.	1	10	25
73496	HT2000B	**$79.95**	**$69.95**	**$62.95**

Crimp/Cut/Strip Tool

For RJ11 (6P) and RJ45 (8P) Modular Plugs



- Repeatable crimp action for consistent high-quality connections
- Push-down locking mechanism
- Size: 8.0"L x 2.0"W
- Weight: 0.8 lbs.

Includes: Cut and strip blade

Part No.	Mfr. Cross Ref. No.	1	10
174684	TTK071	**$34.95**	**$31.49**

Professional Modular Crimping Tool





- Spring return action
- 6mm and 12mm stripping guide
- Crimp modular plugs without changing dies
- Crimps 10P10C, RJ45: 8P8C, RJ11 and RJ12: 6P6C, and 4P4C (Handset)
- Insulated handles
- Size: 8.2"L • Weight: 1.2 lbs.

Part No.	Mfr. Cross Ref. No.	1	10	25
181147	HT200	**$57.95**	**$53.95**	**$48.95**

Plastic Modular Crimping Tool





- Crimps 4P, 6P and 8P plugs (4P2C, 4P4C, 6P2C, 6P4C, 6P6C, 8P2C, 8P4C, 8P6C, 8P8C)
- Size: 8.0"L

Part No.	Description	1	10	25
116097	RJ11 crimping tool	**$10.95**	**$9.95**	**$8.95**

Metal Modular Crimping Tools



114526

- Cable stripper and wire cutter
- Size: 8.0"L
- Weight: 1.8 lbs.
- **73091:** Crimps 4P and 6P plugs (4P2C, 4P4C, 6P2C, 6P4C, 6P6C)
- **114526:** Crimps 6P and 8P plugs (6P2C, 6P4C, 6P6C, 8P2C, 8P4C, 8P6C, 8P8C)

Part No.	Description	1	10	25
73091	RJ11	**$16.95**	**$15.25**	**$13.79**
114526	RJ11/RJ45.....	**19.95**	**17.95**	**15.95**

Ratcheted Modular Crimping Tools



159311



159337

- Insulated grip
- Ratcheted type
- Metal

159311:
- 7.5"L
- Crimps RJ45 (8P8C) and RJ11/12 (6P6C)
- Weight: 0.7 lbs.

159337:
- 8.0"L
- Crimps RJ45 (8P8C) and RJ11/12 (6P6C) and handset (4P4C)
- Weight: 1.2 lbs.

Part No.	Description	1	10	25
159311	RJ45/11/12	**$21.95**	**$19.95**	**$17.95**
159337	RJ45/11/12	**62.95**	**56.95**	**50.95**

Non-Insulated Terminal D-Sub Crimping Tool

14-26 AWG



- Heavy-duty metal crimping tool with cutter and insulated handles
- For computer pins and sockets, D-sub 26-28 AWG wire
- For butt-insulated connectors, 22-26 AWG wire
- For telephone spade lugs, 22-26 AWG wire
- For non-insulated connectors, 20-22 AWG wire
- For non-insulated connectors, 14-18 AWG wire
- Coiled spring return • Size: 7.3"L x 1.5"W

Part No.	Product No.	1	10	25	100
99442	HT202A	**$8.95**	**$7.95**	**$6.95**	**$6.29**

D-Sub Crimping Tool

20-28 AWG





- Crimps D-sub pins and sockets
- For use with P/Ns 43377, 43369, pg 84 and 100765, pg 81
- Size: 7.0"L x 4.0"W

Part No.	Product No.	1	10	25
159265	HT213	**$9.95**	**$8.95**	**$7.95**

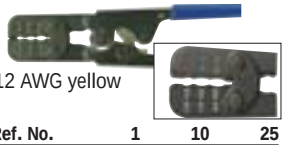
Ratcheted BNC Crimping Tool



- Crimps RG58, RG59, RG62, RG174 and fiber optic
- All steel construction
- Size: 8.5"L x 2.5"W
- Weight: 1.1 lbs.

Part No.	Product No.	1	10	25
114534	HT-3019	**$22.95**	**$19.95**	**$17.95**

Terminal Wire Crimping Tool



- Crimps solderless terminals: 18-22 AWG red, 14-16 AWG blue and 10-12 AWG yellow
- Size: 9.0"L x 2.0"W

Part No.	Mfr. Cross Ref. No.	1	10	25
72995	HT303	**$17.95**	**$15.95**	**$13.95**

Ratchet Crimp Tool

For RJ-11 (6P) and RJ45 (8P) Modular Plugs



- Repeatable crimp action for consistent high-quality connections
- Size: 8.5"L x 2.2"W
- Weight: 1.2 lbs.

Includes: Cut and strip blade

Part No.	Mfr. Cross Ref. No.	1	10
174676	TTK070	**$42.95**	**$38.95**

We'll match the advertised price of any like product.

Jameco's Low-Price Guarantee

It's that simple!

3X Magnifying Lamps



- 45" extension arm
- Supplied with 22-watt Circuline tube
- New wire clip design permits easy installation
- Extra strong, all-metal mounting base with electrical outlet
- Metal bulb holder for extra protection
- Power requirement: 110VAC/60Hz
- 3X magnification • Weight: 7.3 lbs.

Part No.	Description	1	10	25
100829	Black lamp	$62.95	$56.95	$49.95
149981	White lamp	60.95	55.95	49.95

Standard Adjustable 3X Magnifying Lamp



- 4" Diameter lens
- Maneuverable 30" arm extension
- Lamp tilts or turns in any direction
- Uses 60W incandescent bulb (not included)
- 3X magnification
- Power requirement: 110VAC/60Hz
- Weight: 2.9 lbs.

Part No.	Description	1	10	25
22710	Magnifying lamp ...	$29.95	$26.95	$23.95

Precision 5X Magnifying Lamp



With an arm that extends to 40" long, adjustable to any direction or angle, and 5X magnifying glass with built-in light, this is the perfect tool to help identify small electronic components, and magnifying a printed circuit board to help you solder electronic components to.

- 5" diameter lens
- Power requirement: 110VAC/60Hz
- Weight: 7.1 lbs.

Includes: 22W circuline fluorescent bulb

Part No.	Description	1	10	25
197456	Magnifying lamp ..	$89.95	$80.95	$72.85

3X Magnifier with Adjustable Stand



- Heavy duty steel base
- Size: 15"L (full stand) x 4"Dia. (base)

Part No.	Description	Wt. (lbs.)	1	10
148881	Magnifier	2.5	$11.95	$10.95

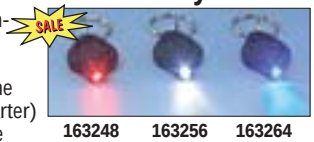
General Purpose Illuminated 3X Magnifier



- 3X power
- 75mm diameter lens
- Great for magnifying fine print
- Light requires 2 AA batteries, see below
- Size: 7.5"L x 3.75"Dia.

Part No.	Description	1	10	25
149542	Illuminated magnifier	$4.49	$3.95	$3.49
151087	1.5V AA battery (req. 2)	.25	.23	.21

Photon Micro-Light Keychains



- Shines astonishingly bright
- Lights any path
- Micro size (same weight as a quarter)
- Visible for more than a mile • Lifetime warranty

163248 163256 163264

Includes: Lithium battery

Part No.	Description	1	10
163248	Red Micro-Light® keychain	$14.39	$12.95
163256	White Micro-Light® keychain	17.95	15.95
163264	Blue Micro-Light® keychain	17.95	15.95

Black Desk Lamp



- Ventilated metal shade
- Double shade reduces glare
- Max. bulb size 60W (not included)
- Power requirement: 110VAC/60Hz
- Rotating on-off switch
- Base size: 5.5" diameter
- Height: 16.0" • Weight: 2.5 lbs.

Part No.	Description	1	10	25
159951	Desk lamp	$2.99	$2.59	$2.29

AA-Battery Flashlight



- Black hard plastic body
- Size: 6.0"L x 0.9"D

Requires: 2 AA batteries (listed below)

Part No.	Description	1	10	100
159812	GE flashlight	$1.95	$1.55	$1.19
151087	AA batteries	.25	.23	.19

2-Piece Electronic Inspection Set



- Bent mirror tool (0.1"Dia. x 6.8"L) – for visual inspection
- Sharp metal pick (0.1"Dia. x 6.0"L) – great for PCB re-work

Part No.	Description	1	10
72514	Electronic inspection set	$6.95	$6.25

Troubleshooting & Repairing Consumer Electronics Without a Schematic



TAB Publishing Learn how to locate, test, and repair defective components in audio amplifiers, car radios, cassette decks, TV chassis, compact disc players, power supplies, AM/FM receivers and VCRs. (475 pages, 1997)

- Size: 7.4" x 9.3" • Weight: 1.1 lbs.

Part No.	Description	1	10
136080	Consumer Electronics	$22.95	$20.95

Professional Tool Case



- Aluminum framed
- Padded interior and adjustable dividers (6 sections)
- Detachable tool organizer for easy access
- Color: black with aluminum trimmings
- Size: 18"L x 13"W x 6"H
- Weight: 8.1 lbs.

Part No.	Description	1	10
149016	Professional tool case	$37.95	$33.95

26-Piece SAE Hobby Tool Set



- 4-1/2" long nose pliers
- 4-1/2" diagonal cutting pliers
- #1 and #2 Phillips bits
- #1 and #2 pozi bits
- 3/16" and 1/4" slotted bits
- Hex to 1/4" driver adapter
- T-10, T-15, and T-20 TORX bits
- Driver handle • Tweezers
- 3" extension bar for 1/4" drive
- 3 slotted and 3 screw driver precision set
- 3/16", 1/4", 11/32" and 3/8" sockets for 1/4" drive
- Compact carrying case
- Size: 12.0"L x 9.0"W x 2.0"H • Weight: 1.5 lbs.

Part No.	Description	1	10	25
170069	26 pc. SAE tool set	$14.95	$12.95	$10.95

26-Piece Metric Hobby Tool Set



- 6 screwdrivers: Phillips #0, #1, slotted 0.05", 0.08", 0.09", 0.12"
- 10 bits: 5mm, 6mm, #No.1, #No.2, No.1, No.2, T-10, T-15, T-20, socket adapter
- Stainless steel tweezers • Sockets: 5, 6, 8, 10mm
- Extension bar • Handle
- 4" long nose pliers • 4" side cutter
- Plastic carrying case
- Size: 6.4"L x 4.1"W x 2.0"H
- Weight: 1.2 lbs.

Part No.	Description	1	10	25
99629	26-piece tool set	$9.95	$9.45	$8.95

6-Outlet Surge Protector



- Surge energy capability: 110 joules
- Surge voltage/ current capability: 6000V/4500 to 6000A
- Response time: under 1 ns
- Clamping voltage: 400 volts
- Rating: 125VAC – 15 Amps

Part No.	Description	1	10	25
195848	6-outlet protector	$4.95	$4.49	$3.95

Opening an account is easy!!

Corporate Customers

Call 1-800-831-4242 for details today



Electronic Technician Tool Kits for Every Need!

51-Piece Tech Tool Kit

Essential Kit for Electronic Machine Maintenance and Repair Jobs!



See matrix below for list of tools. Case features removable pallets, a combination lock and a cushioned, black plastic handle.

- Size: 12.5"L x 17.5"W x 3.5"H
- Weight: 10.4 lbs.

Part No.	Description	1	5
26681	51-piece tool kit	**$99.95**	**$89.95**

55-Piece Tech Tool Kit



An assortment of tools for general & precision work for technicians, engineers, students, etc.

- In addition to the tools listed in the matrix below, the kit includes:
  - – screwdriver handle
  - – 6 piece mini-hammer set
  - – 5 piece of double edge blade
- Carrying case has outer velcro pockets to store paperwork, etc.
- Complete your assortment with a multimeter (see pages 114-116)
- Size: 17.6"L x 12.8"W x 4.0"H • Weight: 9.2 lbs.

Part No.	Description	1	5
136311	55-piece tool kit	**$129.95**	**$116.95**

66-Piece Tech Tool Kit

Kit for Field Technicians and Engineers!



Aluminum case features removable pallets, surface-type locks, a black plastic handle, side buckles and a strap.

- In addition to the tools listed in the matrix below, the kit includes:
  - – mini vacuum cleaner
  - – cassette head cleaning fluid
  - – keyboard/monitor spray cleaner
  - – long nose pliers with cutter – hobby vice
- Size: 18.0"L x 14.0"W x 6.0"H • Weight: 15.5 lbs.

Part No.	Description	1	5
105646	66-piece tool kit	**$185.95**	**$169.95**

69-Piece Tech Service Tool Kit



- In addition to the tools listed in the matrix below, the kit includes:
  - – 40 pc. socket pack
  - – 6" side cutter
  - – 6" long nose plier
  - – 6" slip joint plier
  - – carpenter hammer
  - – 3 piece trimmer set
  - – stainless steel spring hook – solder wick
  - – 8" combination plier – 2 removable pallets
- Size: 18.5"L x 13.8"W x 6.7"H • Weight: 22.8 lbs.

Part No.	Description	1	5
149024	69-piece tool kit	**$229.95**	**$205.95**

11 & 12-Piece Lightweight Computer-Service Tool Kits



- In addition to the tools listed in the matrix below, both kits include:
  - – 2 nut drivers: 3/16", 1/4"
  - – 3-claw parts holder

167206

167206: 11-Piece Tool Kit

- In addition this kit includes:
  - – clear components tube holder
- Size: 8.5"L x 5.9"W x 1.3"H
- Weight: 1.1 lbs.



14189

14189: 12-Piece Tool Kit

- In addition this kit includes:
  - – 14-16 pin IC inserter/straightener
- Size: 9.0"L x 5.8"W x 1.3"H
- Weight: 1.2 lbs.

Part No.	Description	1	10	25
167206	11-piece tool kit	**$12.95**	**$11.49**	**$9.95**
14189	12-piece tool kit	**14.95**	**13.49**	**11.95**

40-Piece Electronic Tech Tool Kit



- In addition to the tools listed in the matrix below, the kit includes:
  - – wire cutters
  - – adapter bit for sockets
  - – pocket clip screwdriver
  - – potentiometer alignment tools
  - – T10-T25 reversible TORX screwdriver bits
  - – 3/16"-1/2" S.A.E. nut driver sockets
  - – 6mm-12mm metric nut driver sockets
  - – slotted and Phillips screwdriver bits
  - – extra long 3-claw parts holder
  - – IC inserter w/ pin straightener
- Size: 9.5"L x 6.8"W x 1.4"H • Weight: 1.7 lbs.

Part No.	Description	1	10	25
119183	40-piece tool kit	**$19.95**	**$17.95**	**$15.95**

20-Piece SAE Computer Tool Kit



- In addition to the tools listed in the matrix left, the kit includes:
  - – 6' solder
  - – 8" wire cutter/stripper
  - – Clamping tweezers
  - – 3-pronged parts retriever
  - – Spare parts tube
  - – Flashlight with battery
  - – Heavy duty molded case
  - – 2 nut drivers (1/4" & 3/16")
- Size: 11.9"L x 9.2"W x 2.0"H • Weight: 3.5 lbs.

Part No.	Description	1	10	100
170966	Computer tool kit ..	**$24.95**	**$22.49**	**$19.95**

Quick-Reference of Special Tool Kit Contents

Parts included in kits	167206	14189	170966	119183	26681	136311	105646	149024
3-piece soldering aid kit					1	1	1	1
3-prong holder						1	1	1
5-way crimping tool						7-way	1	1
6 precision screwdrivers					short	1	long	1
Hex key wrench	1-pc	1-pc	1-pc		7-pc	7-pc		7-pc
10-foot measuring tape					1			1
10-piece mini wrench set							1(SAE)	1
30-watt soldering iron			1		1	1	1	1
Adjustable wrench			1		1	1	1	1
Anti-static strap						1	1	1
8" lineman's pliers						1	1	
Bent needle nose pliers					1	1		1
Brush					1	1	1	1
Carrying case	1	1	1	1	1	1	1	1
Desoldering pump					1	1	1	1
Diagonal cutting pliers					1	1	1	1
Digital Multimeter					1		1	
Electrical test screwdriver							1	
Electrician's tape					1		1	1
Flat nose pliers					1	1	1	1
Forceps								1
Heat sink						1		1
Heavy-duty utility knife					1	1	1	
IC extractor	1	1	1	1		1	1	1
Inspection mirror								1
Mini drill							1	1
Mini flashlight						1	1	1
Needle files					2	5	5	5
Needle nose pliers			1		1	1	1	
Precision wire stripper				1				1
Rosin core solder					1	1	1	1
Screwdriver set	4-pc	4-pc	6-pc		10-pc	2-pc	13-pc	9-pc
Snipe nose pliers								1
Soldering stand					1		1	
Stainless steel scissors					1		1	
Tweezers	1	1	1		1	2	1	
Utility components box					1		1	1
Total Pieces	**11**	**12**	**20**	**40**	**51**	**55**	**66**	**69**
Price	**$12.95**	**$14.95**	**$24.95**	**$19.95**	**$99.95**	**$129.95**	**$185.95**	**$229.95**

See the yellow highlighted items.

Special Jameco Values!

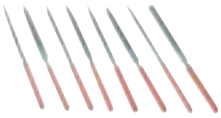
Details on Page 5

Part Number Color Code: New Sale Refurbished Closeout

Steel File Sets

- Strong tool steel

100360: 8-piece
- 5.65"L
- 1 ea. 0.15"Dia., 0.13"Dia., 0.12"Dia., 0.11"Dia. and four 0.22"Dia.


100360

202833: 6-piece
- 5.5"L
- 1 ea. 0.12"Dia. (round), 0.11"W (triangle), 0.10"W (square), 0.20"W (half-round) and two 0.2"W (flat)

Part Number	Mfr Cross Ref. No.	Description	1	10
100360	FS108F	8-piece file set	$9.95	$8.95
202833	08110	6-piece file set	6.95	6.25

1/4 – 1/2 Watt Resistor Lead Forming Tool

- Watt size indicates appropriate package size
- Bends lead length in .05" increments
- Excellent for capacitors also
- 1/4W: 0.4"-1.5"; 1/2W: 0.5"-1.5"; 5.4"L x 1.5"W


106884

Part No.	Description	1	10	50
106884	1/4-1/2W	$2.95	$2.65	$2.39

Deluxe Precision Knife Set

- Three different knife handles – fine work, medium and heavy duty power grip
- Size: 6.3"L x 2.8"W x 1.4"H



Includes: 13 different types of blades

Part No.	Description	1	10	25
72768	13 blade knife set	$9.95	$8.95	$7.95

5" Steel Hemostats

- Grade 410 A.I.S.I. stainless steel
- Three locking positions
- Available with straight or curved tip


115107

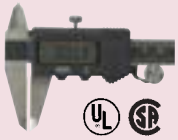
Part Number	Mfr. Cross Ref. No.	Description	1	10	50
115107	HEMO1	5" straight	$3.95	$3.49	$2.95
115115	HEMO2	5" curved	4.25	3.75	3.25

For our selection of tool kits, see page 123



Digital Display Calipers

Metric or Inches



- Hardened stainless steel
- Display:inches to 1/1000THS mm to 1/100THS
- Resolution: 0.01mm (0.0005")
- Instructions for making internal, external, depth and step measurements
- Auto-off after 5 minutes
- Calipers measure to 6 inches/150mm
- Weight: 0.8 lbs. • One-year warranty

SALE

Includes: Fitted case and 1.5V silver oxide battery (replacement battery, P/N 140783, pg 168)

Part No.	Description	1	10	25
127482	Digital disp. calipers	$59.95	$53.95	$48.95

Precision Micrometer

0"–1" Range ± .0001"



SALE

Forged steel frame precision micrometer is complete with chrome barrel and thimble for easy-to-read contrasting graduation. Hardened, precision-ground measuring surface with positive spindle lock holds measurements. Accurate to .0001". Quick and easy zero adjustment with spanner wrench.

- Length: 5.4" • Weight: 0.7 lbs.

Part No.	Description	1	10	25
169543	Precision micrometer	$14.95	$13.49	$11.95

Metal Dial Calipers

Metric or Inches


116134

- For accurate measurements every time
- Measures outside, inside and depth
- Easy-to-read dial gauge
- Materials: metal
- Length: 6" (150mm)
- Color: silver • Weight: 0.7 lbs.

SALE

Includes: Fitted plastic storage case

Part No.	Description (min. reading)	1	10	25
116134	Metric (.02 mm)	$27.95	$24.95	$22.49
116126	Inches (.001 inch)	27.95	24.95	22.49

Strip-Wrap-Unwrap Tools

- Tool tip made of tempered steel
- Use with 30 AWG wire on .025" square posts
- No solder necessary, see pg 88 for wire
- Spring steel cutter • 4.5" long


34577

34585:
- Wrap 1 to 2 turns of insulated portion of wire for secure connections
- Modified tool

Part No.	Product No.	1	10	25
34577	WSU30	$29.95	$26.95	$23.95
34585	WSU30M	29.95	26.95	23.95

JAMECO Pocket Screwdriver

Phillips/Flat head



- Pocket screwdriver with Phillips and slotted
- Pen clip for pocket storage • Size: 6"L

Part No.	Description	1	10	100
127271	Pocket screwdriver	$1.49	$1.29	$.99

Glue Gun and Sticks

- Adheres to PCBs, cardboard, wires and metal
- Silicon nozzle
- Electronic heating
- Trigger action
- Utilizes long glue sticks (100mm)
- Size: 7.3"L x 6.3"W
- Weight: 0.8 lbs.


72696

Part No.	Description	1	10	25
72696	Glue gun	$10.95	$9.95	$8.95
78633	Glue sticks (6/pk)	2.95	2.69	2.29
176292	Glue sticks (10/pk)	4.95	4.29	3.79

Black Desk Lamp

- Ventilated metal shade
- Double shade reduces glare
- Max. bulb size 60W (not included)
- Power requirement: 110VAC/60Hz
- Rotating on-off switch
- Base size: 5.5" diameter
- Height: 16.0"
- Weight: 2.5 lbs.



SALE

Part No.	Description	1	10	25
159951	Desk lamp	$2.99	$2.59	$2.29

AA-Battery Flashlight

- Black hard plastic body
- Size: 6.0"L x 0.9"D

Requires: 2 AA batteries (listed below)



Part No.	Description	1	10	100
159812	GE flashlight	$1.95	$1.55	$1.19
151087	AA batteries	.25	.23	.19

40-Piece Electronic Tech Tool Kit

- Zipper vinyl case
- Weight: 1.7 lbs.
- Size: 9.5"L x 6.8"W x 1.4"H



Includes: IC inserter with pin straightener, IC extractor, extra long 3-claw parts holder, slotted and Phillips screwdriver bits, 6mm-12mm metric nut driver sockets, 3/16"-1/2" S.A.E. nut driver sockets, T10-T25 reversible TORX screwdriver bits, potentiometer alignment tools, adapter bit for sockets, wire cutters and stripper, and pocket clip screwdriver

Part No.	Description	1	10	25
119183	40-piece tool kit	$19.95	$17.95	$15.95

Phone 1-800-831-4242
Fax 1-800-237-6948
Order Anytime 24x7x365
Online www.Jameco.com



.100" IDC Plug Connectors

Double Row
- .100" x .100" grid
- Shrouded header w/o mounting ears
- Plastic
- Contact: gold-plated phosphor bronze
- Use with IDC socket for connectors, pg 80


29217

Part No.	Mfr. Cross Ref. No.	Contacts	1	10	100
29188	P40	40	$1.95	$1.75	$1.49
29217	P50	50	1.95	1.75	1.49

USB-A & B Connectors and Pins


159716 USB-A


161023 USB-A

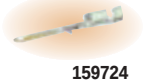
159716/174060: USB A & B Male Connectors
- 3-part housing: tin plate over brass and glass fiber
- 4-pins (P/N 159724) required per USB connector


174060 USB-B

161023/174051: USB A & B Female Connectors
- PC mount right angle with board locks


174051 USB-B

159724: Male Crimp Pin
- Pin for P/N 159716 (4 required)
- Contact brass
- Use P/N 159265 for crimping tool, pg 121


159724

✳ **Prepackaged: order in increments of 10, 100 or 1000**

Part No.	Description	1	10	100	1000
159716	USB-A conn. (M)	$.79	$.71	$.61	$.44
161023	USB-A conn. (F)	.79	.71	.61	.44
174060	USB-B conn. (M)	.59	.53	.48	.43
174051	USB-B conn. (F)	.79	.69	.49	.36
159724	Crimp pin for 159716 ✳		.125	.075	.05

Extraction Tools for Crimp Pins

- Quickly and easily extract 0.093" locking pins from interlocking connectors
- Heavy duty metal construction
- Precision design
- Length: 5"
- See far right for crimp pins, P/N 42729 & 42649


131887

Part No.	Product No.	Description	1	10
131887	HT319C	Male tool for 42729	$9.95	$8.95
131879	HT319B	Female tool for 42649	9.95	8.95

30-Day Money-Back Guarantee

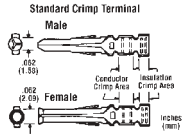
If you're not satisfied we'll take it back!
Details on page 181

.062" Power Connector Kit

This assortment kit contains mating sets of housings and pins.
- Voltage: 250VAC • Current: 5A
- Temperature range: -40˚C to +105˚C

Includes: 3 ea. 2-pin plugs and 2-pin receptacles, 8 ea. male terminals and female terminals.





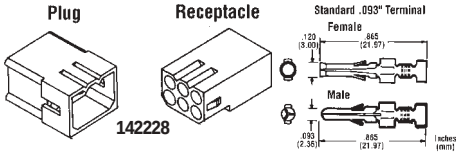
Part No.	Molex No.	Description	1	10	50
142113	1625-2	Kit	$6.49	$5.75	$4.95

.093" Power Connector Kits

These assortment kits contain mating sets of housings and pins.
- Voltage: 250VAC
- Temperature range: -40˚C to +105˚C

142181: • 3 ea. 2-pin plugs & receptacles, 8 ea. female & male terminals • Current: 12A
142201: • 2 ea. 4-pin plugs & receptacles, 10 ea. female & male terminals • Current: 9A
142228: • 2 ea. 6-pin plugs & receptacles, 14 ea. female & male terminals • Current: 9A

Includes: Male and female tin-plated standard brass .010" pins; 18-22 AWG crimp size wire



Part No.	Molex No.	Description	1	10	50
142181	1545	Kit	$4.95	$4.49	$3.95
142201	1490	Kit	4.95	4.49	3.95
142228	1261	Kit	5.25	4.75	3.95
142236	W-HT-2038	Ext. tool	14.95	13.49	12.15

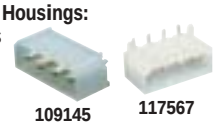
0.2"-Pitch Power Connectors and Pins

Connector & Housing Specifications:
- Voltage rating: 250VAC (Mate-N-Lock 600VAC)
- Operating temperature: -55°C to +105°C

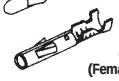
Crimp Pin Specifications:
- Material: tin plated brass • Current rating: 1.5 amps
- Wire size range: 18-24 AWG
- Use crimp tool P/N 99442, pg 121

For 5.25" Disk Drives and Power Supplies

42075 & 42067 Connector Housings:
- Keyed mating connectors
- External key bar indicates pin 1


109145 117567


42729 (Male for 42075)


42649 (Female for 42067)


42075 (Male)


42067(Female)

- See far left for extraction tools, P/N 131887 & 131879

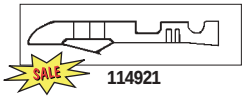
✳ **Prepackaged: order in increments of 10, 100 or 1000**

Part No.	Description	1	10	100	1000
109145	4-pin M vert. PCB mtg ✳	$.59	$.49	$.31	
117567	4-pin M PCB mounting, horizontal edge mount ✳	.59	.53	.47	
42075	4-pin M housing ✳	.23	.14	.13	
42067	4-pin F housing ✳	.23	.18	.15	
42729	M crimp pin for 42075 ✳	.10	.07	.06	
42649	F crimp pin for 42067 ✳	.10	.09	.075	

For 3.5" Disk Drives and Power Supplies


114930


114999



114921

✳ **Prepackaged: order in increments of 10, 100 or 1000**

Part No.	Description	1	10	100	1000
114930	4-pin F housing ✳	$.19	$.17	$.12	
114921	F crimp pin for 114930 ✳	.10	.075	.05	

Part No.	Description	1	100	1000
114999	4-pin M rt. angle PCB mtg	$.35	$.29	$.18

0.118"-Pitch ATX Power Connectors for Motherboards & Power Supplies

- Voltage rating: 250V AC/DC • Current rating: 7A AC/DC • Temperature range: -25˚C to 85˚C
- Insulation resistance: 1000MΩ min. • Withstanding voltage: 1500V/min.

147379: ATX male 20-pin edge mount connector
- Material: nylon 66, UL-94VO
- Material of post: tin-plated brass • Diameter of post: .045"

147387: Housing connector • Material: nylon 66, UL-94VO
147395: ATX power terminal pins • Material: tin-plated brass


147379


147395


147387

✳ **Prepackaged: please order in increments of 10, 100 or 1000**

Part No.	Description	L	W	H	Dia	Use With	1	10	100	1000
147379	20-pin male connector	1.7"	0.4"	0.6"	—	—	$.59	$.53	$.48	$.43
147387	20-pin housing connector	1.7"	0.4"	0.8"	—	147395	✳	.17	.15	.13
147395	Power terminal pin, female	.59"	—	—	.068"	147387	✳	.12	.095	.065

0.098"-Pitch AT Power Connectors for Motherboards & Power Supplies

- Voltage rating: 250V AC/DC • Current rating: 7A AC/DC • Temperature range: -25˚C to 85˚C
- Insulation resistance: 1000MΩ minimum • Withstanding voltage: 1500V/min.

78300: AMP60G male 6-pin PCB mount connector
- Material of post: tin-plated brass • Diameter of post: .09"

78326: AMP50G female 6-pin housing connector • Material: nylon
78318: AMP501T terminal pin
- Material: tin-plated brass


78300


78318


78326

✳ **Prepackaged: please order in increments of 10, 100 or 1000**

Part No.	Description	L	W	H	Dia	Use With	1	10	100	1000
78300	6-pin male connector	.93"	.37"	.57"	—	—	$.45	$.39	$.35	$.31
78326	6-pin housing connector	.94"	.25"	.74"	—	78300	.35	.31	.28	.25
78318	Power terminal pin, female	.69"	—	—	.09"	78326	✳	.10	.065	.055

Call for OEM pricing – we carry major manufacturers.

BNC Coax Male Connectors

BNC connectors are miniature, lightweight units designed to operate up to 11GHz and typically yield low reflection up to 4GHz.


Fig. 1


Fig. 2

See page 127 for more BNC connectors

SALE


Fig. 3


Fig. 4

BNC Terminators (Fig. 1)

Part No.	Description	1	10	100	500
71458	50Ω	$1.35	$1.09	$.89	$.73
71790	75Ω	1.35	1.09	.89	.73
102306	93Ω	.36	.33	.29	.26

BNC with Pin and Ferrule (Fig. 2)

135618	RG6	$.69	$.55	$.34	$.31
71482	RG58	1.39	1.25	1.09	.95
71271	RG59/62	1.19	.95	.69	.49
112109	RG174	1.19	1.09	.95	.69

BNC Clamp-On (Fig. 3)

119394	RG59/62	$1.69	$1.35	$.93	$.73

BNC Twist-On (Fig. 4)

108994	RG58	1.49	$1.35	$1.19	$.99
71781	RG59/62	1.09	.99	.89	.79

BNC Hex Crimping Tool

RG58/59/62/142

- Crimps BNC connectors to RG58/59/62/142
- Crimps center pin
- Adjustable grip opening
- Insulated grip handles
- Size: 9.0"L x 2.0"W
- Weight: 1.5 lbs.



Part No.	Product No.	1	10	25
159302	HT106D	$14.95	$13.49	$11.95

SMA/SMB 50Ω Coax Cables


Fig. 1 Fig. 2 Fig. 3 Fig. 4

Fig. 1: SMA male to SMA male
Fig. 2: SMA male to SMA right angle male
Fig. 3: SMA right angle male to SMA right angle male
Fig. 4: SMB male to SMB male

Part No.	Cable	Fig.	Lgth (ft.)	1	10	50
159370	RG58	1	2.0	$4.49	$3.99	$3.49
159396	RG58	1	6.0	5.49	4.89	4.19
169800	RG174	1	0.5	3.75	3.25	2.75
163854	RG174	1	1.0	4.49	3.95	3.39
153381	RG174	1	2.0	4.95	4.29	3.39
153390	RG174	1	4.0	5.49	4.75	4.29
159450	RG174	1	6.0	5.75	5.25	4.75
175126	RG174	2	0.5	4.49	3.95	3.49
175134	RG174	2	1.0	4.95	4.25	3.75
175142	RG174	3	0.5	5.75	5.25	4.49
175151	RG174	3	1.0	6.25	5.75	4.75
175169	RG174	4	0.5	4.25	3.75	3.39
175177	RG174	4	1.0	5.29	4.79	3.95

F-Type 75Ω Coax Cable

- Typical application: F connector for VCRs
- Low signal loss
- Strain relief
- Male to male F-type

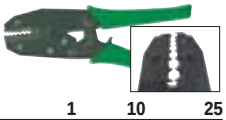
SALE



Part No.	Cable	Lgth (ft.)	1	10	50	100
85585	RG59	3	$2.39	$1.89	$1.39	$.99

Ratcheted BNC Crimping Tool

- Crimps RG58, RG59, RG62, RG174 and fiber optic
- All steel construction



Part No.	Product No.	1	10	25
114534	HT-3019	$22.95	$19.95	$17.95

BNC Coax Cables


181307 152311 85542

- Male coax connectors

SALE

RG6 75Ω Cables

Part No.	Description	1	10	50	100
176794	3' BNC to BNC	$3.95	$3.15	$2.39	$1.65
176815	6' BNC to BNC	4.95	3.95	2.95	2.09

RG58/U 50Ω Cables

- For Ethernet networks, oscilloscopes
- * **152311** has male and female coax connectors

Part Number	Mfr. Cross Ref. No.	Lgth (ft.)	1	10	50	100
181307	CRG58-1RR	1	$2.89	$2.59	$2.29	$2.09
102314	CRG58-1	1.5	2.49	1.95	1.75	1.39
11404	CRG58-3	3	3.19	2.89	2.59	1.95
102331	CRG58-6	6	3.69	3.29	2.99	2.69
152311*	RG58MF-6	6	2.95	2.35	1.79	1.23
180822	CRG58-10	10	4.49	3.99	3.39	2.99
102349	CRG58-12	12	4.95	4.49	3.99	3.39
169818	CRG58-15	15	4.95	4.49	3.69	3.29
180849	CRG58-22	22	4.95	3.95	2.95	1.95
102357	CRG58-25	25	5.99	5.49	4.99	3.99
102365	CRG58-50	50	8.95	7.85	6.29	5.49
102381	CRG58-100	100	12.95	10.49	8.49	6.49

RG59/U 75Ω Cables

- For CATV and video patch cords

Part Number	Mfr. Cross Ref. No.	Lgth (ft.)	1	10	50	100
86471	CRG59-1	1.5	$2.49	$2.25	$1.99	$1.79
85542	CRG59-6	6	3.39	2.99	2.69	2.19
102373	CRG59-12	12	5.19	4.69	3.99	2.99

RG174/U 50Ω Cables

- For Ethernet networks, oscilloscopes

Part Number	Mfr Cross Ref. No.	Lgth (ft.)	1	10	50	100
111472	RG174U3	3	$3.25	$2.95	$2.65	$2.39
111481	RG174U6	6	3.95	3.59	3.29	2.95

RG Type Bulk Coaxial Cable



RG58/U & RG58A/U (50Ω): Nominal capacitance: 27pF/ft.; center resist.: 10.4Ω/1kft. @ 77˚F
RG59/U (75Ω): Nominal capacitance: 19pF/ft.; center resist.: 16.5Ω/kft. @ 77˚F
RG174/U (50Ω): Nominal capacitance: 30.8pF/ft.; center resist.: 97Ω/kft. @ 77˚F

- **Prepackaged and priced in increments of 100' or 1000'**

Part Number	Mfr. Cross Ref. No.	Description	100 ft.	1000 ft.
102226	RG58/U	For ethernet, oscilloscopes (solid 20AWG)	$10.00	$79.00
116898	RG58A/U	For ethernet, oscilloscopes (stranded 20AWG)	14.00	120.00
102218	RG59/U	For CATV & video patch cords (solid 22AWG)	11.00	90.00
112037	RG174/U	For ethernet, oscilloscopes (stranded 26AWG)	18.00	160.00

BNC/RCA Adapters

- Convert existing cabling systems to more readily available parts for expansion, replacement or upgrade


114788 114753 114770 159441

Part No.	Description	1	10	100	500
207167	RCA female to BNC female	$1.99	$1.79	$1.59	$1.39
114788	RCA female to BNC male adapter	1.25	1.12	.99	.86
207175	RCA male to BNC male	1.99	1.79	1.59	1.39
114753	RCA male to BNC female adapter	1.35	1.21	1.09	.99
114770	BNC female to "F" connector male adapter	1.49	1.34	1.19	.93
159441	RCA female to female adapter	1.49	1.19	.89	.63
207141	3.5mm mono male to BNC female	1.99	1.79	1.59	1.39
207159	2.5mm mono male to BNC female	2.99	2.69	2.39	1.99

Coaxial Cable Stripper

- Strips RG58, 59 and 62 cable
- Replaceable blades
- Size: 4.2"L x 0.8"W

For our complete selection of tools, see pages 123-124



Part No.	Description	1	10
73066	3-bladed coax cable stripper	$14.95	$13.49

RCA Jacks


112475 169501 185842 159484 172339

- Standard RCA jacks for audio and video signals
- See page 142 for RCA cables

✳ **Prepackaged: please order in increments of 10, 100 or 1000**

Part No.	W x D x H (ins.)	1	10	100	1000
112475	.42 x .57 x .48	$.39	$.35	$.31	$.19
169501	.40 x .85 x .50	.39	.35	.31	.23
185842	.44 x .59 x .47	✳	.12	.10	.09
159484	.84 x .38 Black	.49	.44	.39	.24
172339	.84 x .38 Red	.49	.39	.31	.23

SMA Brass Plug

- Frequency range: 0-18GHz
- Outer cable attachment: crimp
- Inner cable attachment: solder
- Construction: captive contact
- Type: crimp plug
- For RG-174/U, RG-188/U and RG-316/U cables



Part No.	Amphenol No.	1	10	50
188488	901-9877-RFX	$2.49	$2.10	$1.85

SMB PCB Connector

- 0-4GHz electrical performance
- Gold plated brass
- Insulation: teflon
- Contact: beryllium copper



Part No.	Description	1	10	50
167311	Fem. right angle PCB	$5.19	$4.49	$3.79

SMB PCB Jack Connectors

- SMB bulkhead jacks for RG-174 cable
- 50Ω crimp type
- Gold plated
- Use with crimping tool P/N 114534, pg 121



Part No.	Description	1	10	50
172363	Bulkhead crimp female	$3.49	$2.95	$2.49
172371	Bulkhead crimp male	3.89	3.49	3.09

MCX Crimp Attachments for Flexible Cable

- For RG-174/U, 188/U, 316/U cable
- Frequency range: 0-6GHz
- Mating: 50Ω snap-on coupling
- Temperature range: -65˚C to +165˚C
- Outer/inner cable attachment: crimp/solder
- Construction: gold plated

188592: MCX crimp plug
188605: MCX crimp jack
188613: MCX right angle plug

SALE


188592


188605


188613

Part No.	Amphenol No.	1	10	50
188592	919-101P-51SX	$3.49	$3.19	$2.89
188605	919-107J-51SX	3.29	2.99	2.69
188613	919-104P-51AX	4.19	3.69	3.29

MicroMate™ (MMCX) Connectors

SALE


188541


188576


188584

- Frequency range: DC thru 6GHz
- Temperature range: -40˚C thru 90˚C

Edgecard
188541: Edgecard Jack • Contact: BeCu
Cable Plug Connectors
- Inner/outer cable attachment: crimp/solder
- Captivated contact

188576: Straight for RG-174/U, 188/U, 316/U cable
188584: Right angle for RG-178/U, 196/U cable

Part No.	Amphenol No.	1	10	50
188541	908-22100	$5.69	$5.19	$4.59
188584	908-43200	7.75	6.49	5.95
188576	908-41300	6.49	5.84	5.26

SMA Connectors, Adapters and Couplers


157972 153365 145381 145373 153285 159530 160021 160012


188509 188525 153453 159468 153592 159476 153293 161277 161293


161306

- Application: cellular phone, data communication, instrumentation and video • 50Ω impedance
- Frequency range: 0-18GHz • Temperature range: -65˚C to 165˚C • Plating: gold and nickel

Connectors

Part No.	Description	Cable Type	Plated	1	10	50	100
157972	SMA 50Ω crimp type male plug connector	RG-58	Gold	$3.49	$2.99	$2.39	$2.19
153365	SMA 50Ω crimp type male plug connector	RG-174	Gold	3.49	2.95	2.49	2.25
145381	SMA straight female PCB mount connector, 4 legs	—	Gold	5.25	4.75	4.25	3.49
145373	SMA 90˚ female PCB mount connector, 4 legs	—	Gold	5.95	5.39	4.79	4.34
153285	SMA bulkhead solder female w/ washer, rear mount	RG-58/174	Gold	2.49	2.25	1.99	1.79
159530*	SMA female panel mount conn., 4 mounting holes	RG-58/174	Gold	2.95	2.65	2.35	2.10
160021*	SMA female panel mount conn., 2 mounting holes	RG-58/174	Gold	2.99	2.69	1.99	1.75
160012	Panel mount feed thru connector female – female	—	Nickel	3.25	2.75	2.25	1.95
188509	SMA PCB straight jack	—	Gold	3.69	3.29	2.79	2.35
188525	SMA PCB right angle jack	—	Gold	5.95	4.95	3.79	3.19

***159530/160021:** Solder cup

BNC Adapters

Part No.	Description	Cable Type	Plated	1	10	50	100
153453	SMA female to BNC male adapter	—	Nickel	$2.49	$2.25	$1.99	$1.79
159468	SMA female to BNC female adapter	—	Nickel	2.49	2.25	1.95	1.69
153592	SMA male to BNC male adapter	—	Nickel	2.95	2.59	2.19	1.99
159476	SMA male to BNC female adapter	—	Nickel	2.75	2.49	2.25	1.95

Couplers

Part No.	Description	Cable Type	Plated	1	10	50	100
153293	SMA straight coupler female – jack-to-jack	—	Gold	$2.69	$2.29	$1.89	$1.59
161277	3-way coupler, 1 male – 2 female	—	Gold	3.25	2.75	2.25	1.95
161293	Straight coupler male – male	—	Gold	2.95	2.65	2.39	2.15
161306	Right angle coupler male – female	—	Gold	3.69	3.29	2.79	2.39

BNC and Type N 50Ω Cable Plugs

BNC 3-Piece

• Silver-plated • Frequency Range: 0 – 4GHz with low reflection


188306


188349

Part No.	Amphenol No.	Cable Type	Attachment (outer/inner)	1	10	50	100
188306	31-320-RFX	RG-58/184	crimp/crimp	$1.69	$1.29	$.95	$.79
188349	31-315-RFX	RG-174/188/316	crimp/crimp	2.19	1.95	1.09	1.01

Type N

• Silver-plated

SALE


188461

Part No.	Amphenol No.	Cable Type	Attachment (outer/inner)	1	10	50	100
188461	82-202-RFX	RG-8/9/144/165	clamp/solder	$4.29	$3.89	$3.49	$2.99
188445	82-5375-RFX	RG-58/141	crimp/crimp	3.95	3.49	3.19	2.85

BNC 50Ω Adapters

NEW


118594 207108 72629 100597 100589

Application: gen. purpose coax T-adapter; ThinNet/Ethernet LAN adapter • Silver-plated

Part No.	Description	1	10	100	500
118594	Male to female/female T-adapter	$2.39	$1.91	$1.43	$1.00
207108	Quad female adapter	3.99	3.49	2.99	2.49
207095	Female to male/male T-adapter	4.99	4.49	3.99	3.49
72629	Female to female/female T-adapter	1.95	1.75	1.49	1.25
207087	Female to male/female T-adapter	7.95	7.15	6.45	5.79
207132	Female to bulkhead female (rt. angle)	3.99	3.59	3.19	2.89
100589	Male to female/female T-adapter (90°)	3.95	3.55	3.19	2.89
100597	Male to female/female T-adapter (180°)	4.75	4.25	3.79	3.39
207116	Male to female/female/female T-adapter	7.95	7.15	6.45	5.79
117461	Male to female/female F-adapter (90°)	3.49	2.95	2.49	2.19
207124	Male/male to female/female T-adapter	4.99	4.49	3.99	3.59
188411	Straight jack-to-jack (Amphenol)*	2.59	1.99	1.49	1.39
188429	Jack-plug-jack (Amphenol)*	4.69	3.99	2.99	2.39
188402	Gasketed jack-to-jack (Amphenol)*	3.49	3.15	2.79	2.49


117461 188411 188402

* Frequency range: 0-4GHz with low reflection

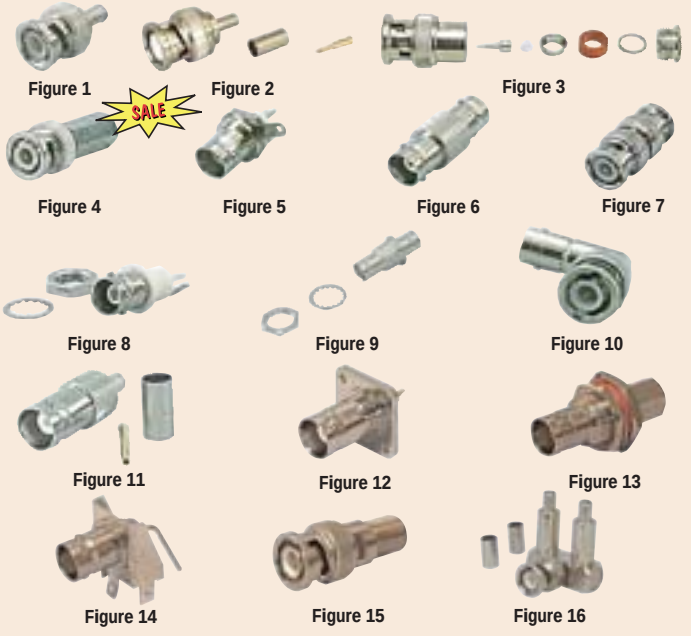
Part Number Color Code
New Sale Refurbished Closeout

We carry major manufacturers – call for OEM PRICING.

BNC Coax Connectors

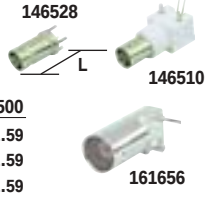
BNC connectors are miniature, lightweight units designed to operate up to 11GHz and typically yield low reflection up to 4GHz

Part No.	Fig.	Description	1	10	100	500
71458	1	BNC male terminator (50Ω)	$1.35	$1.09	$.89	$.73
71790	1	BNC male terminator (75Ω)	1.35	1.09	.89	.73
102306	1	BNC male terminator (93Ω)	.36	.33	.29	.26
135618	2	BNC male with pin and ferrule (RG-6)	.69	.55	.34	.31
71482	2	BNC male with pin and ferrule (RG-58)	1.39	1.25	1.09	.95
71271	2	BNC male with pin and ferrule (RG-59/62)	1.19	.95	.69	.49
112109	2	BNC male with pin and ferrule (RG-174)	1.19	1.09	.95	.69
119394	3	BNC male clamp-on (RG-59/62)	1.69	1.35	.93	.73
108994	4	BNC male twist-on (RG-58)	1.49	1.35	1.19	.99
71781	4	BNC male twist-on (RG-59/62)	1.09	.99	.89	.79
71589	5	BNC female panel mount (UG-1094A)	1.39	1.25	1.09	.95
71909	6	BNC female/female coupler (UG-914)	.99	.79	.68	.59
127343	7	BNC male/male coupler (UG-491B/U)	1.69	1.39	1.15	.99
111561	8	BNC female isolated bulkhead	2.29	1.99	1.79	1.59
148224	9	BNC female bulkhead feed-thru.	1.69	1.39	1.15	.99
148232	9	BNC female isolated bulkhead feed-thru.	1.95	1.79	1.59	1.39
127351	10	BNC M-F right angle (DG-306B/O)	2.49	2.19	1.85	1.59
160928	11	BNC female, crimp type (RG-58)	1.25	1.09	.99	.89
161921	11	BNC female, crimp type (RG-174)	1.25	1.09	.94	.81
174289	12	BNC female chassis mount	1.45	1.15	.89	.59
174297	13	BNC female twist-on bulkhead	2.25	1.95	1.79	1.59
174271	14	BNC female right-angle chassis mount	2.95	2.65	2.39	2.19
174254	15	BNC male to F connector female	1.49	1.25	1.09	.89
207183	16	BNC male to RG58/59 crimp on	4.99	4.99	4.99	4.99



BNC PCB Connectors

- **146528:** Ideal for applications where multiple insertions require a connector which can endure the stress of high torque • **146510/161656:** Maintains matching impedance at 50Ω & 75Ω. Ideal for LAN cards & precision video



Part No.	Description	Length (L)	1	10	100	500
146528	BNC straight metal	.719"	$2.29	$1.99	$1.79	$1.59
146510	BNC right-angle plastic insulation	1.37"	2.29	1.99	1.79	1.59
161656	BNC right-angle metal	.861"	2.29	1.99	1.79	1.59

BNC Coax Network Balun

- Converts BNC coaxial cable to twisted-pair wires with both a modular (RJ11) jack and 2 screw terminals
- 100Ω termination



SALE

Part No.	Description	1	10	50
72637	BNC coax network balun	$7.95	$7.15	$6.45

Fiber Optics

Fiber Optic Duplex Cable Assemblies



Fig. 1 Fig. 2

- Multimode
- 62.5/125 micron fiber size
- Color: orange

SALE

Insertion Loss (dB) Table:

Part No.	A1	A2	B1	B2
175345	0.13	0.11	0.07	0.04
175353	0.21	0.10	0.23	0.07
175361	0.08	0.08	0.12	0.12

Part No.	Desc.	Fig.	Length	1	10	100
175345	ST-ST	1	2M (6'6")	$22.95	$19.95	$17.95
175353	ST-SC	2	1M (3'3")	22.99	20.69	18.65
175361	ST-SC	2	2M (6'6")	26.95	24.25	21.79

10' Fiber Optic Cable

- 1000µm core jacketed plastic fiber optic cable (10')



Part No.	Description	1	10
171272	10' fiber optic cable	$6.95	$6.25

Fiber Optic Infrared Detectors

- Mates with standard 1000µm core jacketed plastic fiber cable
- Connector-less fiber termination and connection
- Inexpensive plastic connector housing • Compatible with LED emitters, below
- Interference-free transmission from light-tight housing
- Internal micro-lens for efficient coupling

169973: V_{CEO}: 30V, Ic: 50mA



Part No.	Description	Color Dot	Peak Wavelength Sensitivity	1	10
169990	TTL compatible output infrared detector D95T	yellow	800nm	$5.95	$5.35
169981	TTL open-collector output infrared detector D96	white	850nm	6.95	6.25
169973	NPN Phototransistor D92	white	870nm	2.69	2.39

Infrared and Visible Light Fiber Optic LED Emitters

SALE

- Mates with standard 1000µm corejacketed plastic fiber cable (recommend P/N 171272, left) • Internal micro-lens for efficient coupling
- Connector-less fiber termination and connection
- Interference-free transmission from light-tight housing
- Excellent linearity • Compatible with fiber optic photo detectors, above



Part No.	Description	Color Dot	Peak Wavelength Sensitivity	1	10
169957	Fiber optic LED E91A	blue	950nm, Vf=1.7V max @ 50mA	$3.95	$3.55
169965	Fiber optic LED E96	pink	660nm, Vf=1.8V max @50mA	5.35	4.89
169949	Fiber optic LED E97	red	660nm, Vf=1.8V max @50mA	5.95	5.39

Fiber Optic Cable-Cutting Tool Kit

Contains fiber optic stripper, 25W hot knife professional fiber cutter, water dispenser, rubber pad, 600 grit & 3µm polishing film, replacement blades, ST-connector fiber polishing puck, rugged storage container & instructions.



Part No.	Description	Weight	1	10
170034	Fiber Optic Tool Kit	2.5 lbs.	$149.95	$134.95

Modular Data Network Cables


115721 without Boot


124804 with Boot

- 4 pair
- 24 AWG (7 x 43) stranded
- UTP • 8P8C
- "Snagless" boot
- Color coded for easy wire tracing
- High-flexibility
- Achieve optimum system performance

† No Boot


124741


124863


124687

Category 5 (100MHz)

Part No.	Description	Color	1	10	100
115713	3ft. cable RJ45	Gray†	$3.29	$2.95	$2.65
201662	3ft. cable RJ45	Gray	3.59	3.25	2.95
115721	7ft. cable RJ45	Gray†	3.95	3.39	2.29
175273	7ft. cable RJ45	Gray	4.75	4.25	3.85
115730	15ft. cable RJ45	Gray†	5.25	4.75	4.25
201671	15ft. cable RJ45	Gray	6.49	5.85	5.25
115748	25ft. cable RJ45	Gray†	8.29	7.49	6.69
201689	25ft. cable RJ45	Gray	8.49	7.65	6.89
181059	50ft. cable RJ45	Gray	11.49	10.39	9.29
124724	3ft. cable RJ45	Red	3.59	2.81	2.44
124732	7ft. cable RJ45	Red	4.35	3.69	3.11
124741	15ft. cable RJ45	Red	6.49	5.85	5.25
170165	25ft. cable RJ45	Red	8.49	7.65	6.19
124847	3ft. cable RJ45	Black	3.59	3.11	2.19
192701	6ft. cable RJ45	Black†	4.49	3.69	3.11
124855	7ft. cable RJ45	Black	4.75	4.25	3.85
124863	15ft. cable RJ45	Black	6.49	5.85	5.25
170173	25ft. cable RJ45	Black	8.49	7.65	6.89
124804	3ft. cable RJ45	Blue	3.59	3.11	2.44
124812	7ft. cable RJ45	Blue	4.75	4.25	3.85
203051	10ft. cable RJ45	Blue	4.49	3.39	2.39
124821	15ft. cable RJ45	Blue	6.19	5.31	4.94
170190	25ft. cable RJ45	Blue	8.49	7.65	6.89
124687	3ft. cable RJ45	Yellow	3.59	3.25	2.95
124695	7ft. cable RJ45	Yellow	4.35	3.69	3.11
124708	15ft. cable RJ45	Yellow	6.19	5.61	4.95
170299	25ft. cable RJ45	Yellow	8.49	7.65	6.19

Category 5e (350MHz)

Part No.	Description	Color	1	10	100
168292	3ft. cable RJ45	Gray	$3.69	$3.31	$2.99
168305	7ft. cable RJ45	Gray	4.95	4.49	3.95
168313	15ft. cable RJ45	Gray	6.95	6.39	5.69
168321	25ft. cable RJ45	Gray	9.69	8.69	7.79
201777	3ft. cable RJ45	Red	3.95	3.55	3.19
201785	7ft. cable RJ45	Red	4.95	4.49	3.95
201793	15ft. cable RJ45	Red	6.95	6.39	5.69
201806	25ft. cable RJ45	Red	9.69	8.69	7.79
201697	3ft. cable RJ45	Black	3.95	3.55	3.19
201700	7ft. cable RJ45	Black	4.95	4.49	3.95
201718	15ft. cable RJ45	Black	6.95	6.39	5.69
201726	25ft. cable RJ45	Black	9.69	8.69	7.79
201734	3ft. cable RJ45	Blue	3.95	3.55	3.19
201742	7ft. cable RJ45	Blue	4.95	4.49	3.95
201751	15ft. cable RJ45	Blue	6.95	6.39	5.69
201769	25ft. cable RJ45	Blue	9.69	8.69	7.79
201814	3ft. cable RJ45	Yellow	3.95	3.55	3.19
201822	7ft. cable RJ45	Yellow	4.95	4.49	3.95
201831	15ft. cable RJ45	Yellow	6.95	6.39	5.69
201849	25ft. cable RJ45	Yellow	9.69	8.69	7.79

RJ45 Keystone Wall Plates


195549 195557 195565 195573 195581

- Color: ivory • Size: 2.8"W x 4.5"H

SALE

Part No.	No. of ports	1	10	100
195549	1	$1.49	$1.25	$.99
195557	2	1.49	1.25	.99
195565	3	1.19	1.09	.99
195573	4	1.49	1.25	.99
195581	6	1.19	1.09	.99

RJ45 Modular Jacks

Punchdown Keystone Type

- Removable jacks used in wall plates (clip in)
- CAT 5e classification
- Punchdown type wiring connections with color coding
- 8P8C
- Size: 0.57"W x 0.63"H x 1.23"D


195602


195611

Part No.	Color	1	10	100
195590	Red	$4.95	$4.45	$3.95
195602	Yellow	4.95	4.45	3.95
195611	Green	4.95	4.45	3.95
195629	Black	4.95	4.45	3.95
195637	Ivory	4.95	4.45	3.95

BNC/F-Type/Fiber Optic Jacks


195645 195653 195661

- Removable jacks used in wall plates (see above)
- Clip on for easy installation on wall plates
- Color: ivory
- Keystone type

SALE

Part No.	Description	1	10	100
195645	F-Type female to female	$2.49	$2.25	$1.99
195653	BNC female to female	2.99	2.79	2.49
195661	ST Fiberoptic	4.95	4.45	5.95

Cat 5 Crossover Cable

- Connect 2 PCs without a hub
- 24AWG (7 x 43) stranded
- Strain relief RJ45 connectors
- 4-pair • 8P8C • UTP



Part No.	Description	1	10	100
169261	10' cable RJ45, gray	$6.95	$6.25	$5.59

Bulk Modular Network Cables

- 100MHz
- 8C
- UTP
- 4 twisted pairs
- Insulation: polyethylene
- Nom. OD.: 189"
- Nominal impedance: 100Ω


118130

Solid: uses modular plug P/N 119343, pg 131
Stranded: uses modular plug P/N 79281, pg 131
118130/201620/201646/201638/201611: 7/32 AWG

- **Prepackaged and priced in increments of 25' or 100'**

24 AWG UTP Category 5 – 100MHz

Part No.	Description	25 ft.	100 ft.	1000 ft.
118113	Solid (gray)	$4.00	$13.70	$110.00
201654	Solid (blue)	4.00	11.00	100.00
118130	Stranded (gray)	5.50	18.00	150.00
201620	Stranded (red)	5.50	15.00	140.00
201646	Stranded (black)	5.50	15.00	140.00
201638	Stranded (blue)	5.50	15.00	140.00
201611	Stranded (yellow)	5.50	15.00	140.00

24 AWG UTP Category 5e – 350MHz

Part No.	Description	25 ft.	100 ft.	1000 ft.
176225	Solid (gray)	$5.00	$17.00	$100.00
201603	Solid (blue)	5.00	14.00	90.00
176233	Stranded (gray)	6.00	21.00	180.00
201574	Stranded (red)	6.00	18.00	160.00
201591	Stranded (black)	6.00	18.00	160.00
201582	Stranded blue)	6.00	18.00	160.00
201566	Stranded (yellow)	6.00	18.00	160.00

Modular Jack Boxes and Wall Plate

- Color: beige
- W/E = Western Electric type no.


Fig. 1 (72311) W: 2.8" H: 4.5"


Fig. 2 (71651) W: 2.0" H: 2.2" D: 0.9"

Part No.	Description	W/E	Fig.	1	10	100
72311	6P6C & 8P8C double wall jack plate w/ jacks	—	1	$1.95	$1.75	$1.57
103464	6P4C adhesive jack RJ11	625A-4	2	1.39	1.19	1.09
71984	6P6C adhesive jack RJ11	625BS-6	2	1.39	1.19	.99
71651	8P8C adhesive jack RJ45	635	2	1.59	1.35	1.19

Surface Mount RJ45 Jack Boxes

Category 5, Unshielded

- RJ45
- 8P8C
- 100MHz
- Color: beige
- Size: 2.6"L x 3.2"W x 1.2"H


176073 176081

Part No.	Description	1	10	100
176073	Single jack	$6.95	$6.25	$5.59
176081	Dual jack	9.95	8.95	7.95

See the yellow highlighted items.

Special Jameco Values!

Details on page 5

Part Number Color Code
New Sale Refurbished Closeout

226-Piece Network Connector Kit

Every connector needed by a network field technician to repair a network.

NEW



- Size: 10.5"L x 7.0"W x 1.5"H
- Weight: 2.5 lbs.

This kit includes:

Quantity	Connector Type
50 pieces (each)	RJ11 solid flat cable (6P4C) RJ11 solid flat cable (4P4C)
25 pieces (each)	RJ11 solid round cable (6P4C) RJ45 solid round cable (8P8C) RJ45 solid flat cable (8P8C)
20 pieces	RJ45 protection caps (assorted colors)
5 (each)	BNC for RG58/U cable BNC for RG59/62/U cable BNC for RG174 cable BNC 50Ω terminator BNC Female-to-female adapter BNC T-adapter male-female-female
1 piece	Storage kit

Part No.	Description	1	10
207079	Network connector kit.....	$69.95	$62.95

Network Starter Kit



Everything you need to set up a simple network. No need to worry about compatibility or acquiring other accessories.

- Single chip controller on PCI network card complies to bus specification 2.1
- Conforms with IEEE standards
- Shielded RJ45 connector on network card
- On-board socket for an optional remote boot ROM
- LED diagnostic to monitor network conditions
- 5-port hub supports 10/100Mbps
- Auto negotiation capability
- Up-link port for expansion
- Power, link/active/speed, FDX/collision indicators for network status

NEW

Includes: Two each PCI network cards, Two each 15 feet straight-through cables, 5-port mini hub, 7.5VDC @ 1A wall transformer, 3.5" diskette drivers, and manual

Part No.	Description	1	10
208469	Network starter kit	$64.95	$58.50

Network Expansion Accessories

Part No.	Description	1	10
201671	15' cable RJ45	$6.49	$5.85
173606	PCI ethernet card	14.95	11.25

RJ45-Plug Color Caps (Boots)



✳ 10 piece minimum

Round

Part No.	Description	1	10	50	100
204409	Cap (black)	✳	$.07	$.064	$.058
204388	Cap (yellow)	✳	.07	.064	.058
204353	Cap (gray)	✳	.07	.064	.058
204361	Cap (blue)	✳	.07	.064	.058
204425	Cap (red)	✳	.07	.064	.058
204396	Cap (green)	✳	.07	.064	.058
204370	Cap (ivory)	✳	.07	.064	.058

Flat

Part No.	Description	1	10	50	100
204290	Cap (black)	✳	$.15	$.135	$.12
204311	Cap (yellow)	✳	.15	.135	.12
204337	Cap (gray)	✳	.15	.135	.12
204345	Cap (blue)	✳	.15	.135	.12
204417	Cap (red)	✳	.15	.135	.12
204302	Cap (green)	✳	.15	.135	.12
204329	Cap (ivory)	✳	.15	.135	.12

Snap-On NEW

Part No.	Description	1	10	50	100
208442	Cap (black)	✳	$.15	$.135	$.12
208434	Cap (yellow)	✳	.15	.135	.12
208426	Cap (gray)	✳	.15	.135	.12
208418	Cap (blue)	✳	.15	.135	.12
208400	Cap (red)	✳	.15	.135	.12
208397	Cap (green)	✳	.15	.135	.12
208389	Cap (ivory)	✳	.15	.135	.12

Retractable Cables

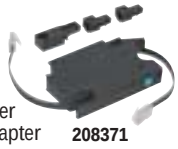
These auto-reel retractable cables are compact and convenient solutions for loose and tangled cable.

208362: RJ11 type
- For telephone and modem applications
- Cord length: 9'6"
- Includes: inline coupler

NEW


208362

208371: RJ45 type
- For telephone, modem and networking applications
- Cord length: 23'


208371

Includes: RJ45 right angle adapter and RJ-45 to telephone outlet adapter

Part No.	Description	1	10
208362	RJ11 cable	$9.95	$8.95
208371	RJ45 cable	19.95	17.95

Single-Line Telephone Filter

In-line Z-BLOCKER® filter blocks interference between DSL/HPN, voice and RF from cordless phones. Plugs directly into any standard phone jack and works with any single line phone, fax or dial-up modem.



Part No.	Description	1	10	25
196429	Telephone filter	$7.95	$7.16	$6.44

19" Rack Mount Patch Panels


208784

Our new 12-port and 24-port patch panels feature 110D punch blocks that are compatible with KRONE or 110D tool. UL and CUL listed and certified, CAT 5 certified and can be used with T568 A/B installations. Blocks are color coded for T568 color-coding. Use with unshielded CAT 5 installations. Comes with cable holder for easy wire management.

NEW

Part No.	Description	1	10
208768	12-port	$45.95	$39.95
208784	24-port	65.95	59.95

19" Cable Management Racks

Make your cable looms neat and organized with our 2 unit cable management rack. Simply slip in the cable between spaces and route them to their destinations.

NEW


208776


209031

Part No.	Description	1	10
208776	Ducting type cable holder	$27.49	$24.75
209031	C clamp type cable holder ..	21.95	19.95

ICON Labels For Network

Organize and label your network connections for easy identification. Label icons are PC/terminal, phone, numbers 0 – 9, letters A – F, AS-400, 10BaseT, token ring, and ethernet.



- 10 sheets per pack

NEW

Part No.	Color	1	10
208792	Red	$9.95	$8.95
208805	Yellow	9.95	8.95
208813	White	9.95	8.95
208821	Blue	9.95	8.95
208830	Green	9.95	8.95

Phone 1-800-831-4242
Online www.Jameco.com

Order Anytime 24x7x365

Fax 1-800-237-6948



Modular Plugs



SALE



P = No. of positions
C = No. of contacts
W/E = Western Electric type number

✳ **Prepackaged: order in increments of 10, 100 or 1000**

Part No.	Description	W/E	1	10	100	1000
103491	4P4C (handset)	616	✳	$.11	$.09	$.06
79290	6P4C (RJ11)	623	✳	.15	.125	.096
79273	6P6C (RJ11)	623	✳	.18	.16	.15
79281	8P8C (RJ45) (for stranded wire)	641	✳	.24	.21	.17
119343	8P8C (RJ45) unshielded (for solid wire)	—	.49	.44	.35	.28
116610	8P8C (RJ45) shielded	—	1.09	.99	.82	.69
204222	8P8C (RJ45) shielded (for STP solid wire)	—	1.39	1.25	1.10	.99
204231	8P8C (RJ45) shielded (for STP stranded wire)	—	1.39	1.25	1.10	.99
116601	8P8C (RJ45) shielded (for solid wire)	—	.99	.89	.79	.65
204249	10P10C (for STP solid wire)	—	1.19	1.09	.99	.85
180646	10P10C (for stranded wire)	—	1.09	.89	.82	.69

Modular Jacks



- PC mount
- Voltage rating: 150 volts AC max.
- Contact current rating: 1.5 amp max. @ 25˚C
- Durability: 750 mating cycles

Part No.	Description	W/E	1	10	100
199620	4P4C (handset) .48"W	—	$.59	$.49	$.39
115128	4P4C (handset) .395"W	—	.69	.49	.35
151765	6P4C (RJ11) side flange	AMP	.52	.45	.39
105945	6P4C (RJ11) top flange	623	.62	.52	.45
204169	6P4C (RJ11) dual	—	1.09	.99	.89
204206	6P4C (RJ11) lead wires	—	1.09	.99	.89
115836	6P6C (RJ11) side flange	—	.74	.67	.59
204177	6P6C (RJ11) dual	—	1.49	1.35	1.19
124038	6P6C (RJ11) 6" leads	—	1.15	.89	.69
115844	8P8C (RJ45)	641	.69	.62	.55
204185	8P8C (RJ45) w/ key	—	1.15	.99	.89
204193	8P8C (RJ45) w/o key	—	1.15	.99	.89
204214	8P8C (RJ45) .81"L	—	1.39	1.19	.99
167290	8P8C (RJ45) top flange	—	.35	.26	.19
203449	8P8C (RJ45) shielded Pin spacing "A" = .055"	—	1.19	.99	.85

Modular Couplers and Adapters



Fig. 1
W: 1.5"
H: 0.9"
D: 0.7"



Fig. 2
W: 1.1"
H: 0.8"



Fig. 3
W: 1.7"
H: 1.0"
D: 0.9"

Style 1 Reverse wiring for telephone systems

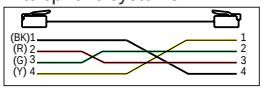
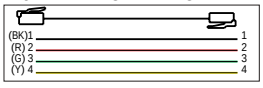




Fig. 4
W: 1.0"
H: 1.0"
D: 2.0"

Style 2 Straight wiring for networking/printer sharing



SALE

Part No.	Description	Fig.	1	10	100
75248	6P4C female "T" adapter, Style 1. Provides 2 jacks from 1 cable. Female jack (6P4C), 2 female modular receptacles (6P4C) RJ11	2	$1.49	$1.34	$1.19
72207	6P4C male "T" adapter, Style 2. Provides 2 jacks from 1 line. Male modular plug (6P4C), 2 female modular receptacles (6P4C) RJ11	2	.89	.69	.49
71757	6P6C modular coupler, Style 1, RJ11	1	.85	.69	.59
135087	6P6C modular coupler, Style 2, RJ11	1	.85	.74	.62
181091	6P6C male "T" adapter, Style 2. Provides 2 jacks from 1 line. Male modular plug(6P6C), 2 female modular receptacles (6P6C) RJ11	2	.24	.21	.19
118501	8P8C modular coupler, Style 1, RJ45	1	1.95	1.79	1.59
135079	8P8C modular coupler, Style 2, RJ45	1	1.15	.99	.89
153023	8P8C modular coupler, Style 2 (for Cat. 5) RJ45	3	6.95	6.25	5.59
172814	8P8C modular coupler, Style 1 (for Cat. 5) RJ45	4	6.95	6.25	5.59

"EZ" RJ45 Connector

Strip the wire and insert into the plug and pull out the wire on the other side. This ensures correct conductor order and uniformity in crimping. No wire bar and no wasted cable.



- For solid or stranded wire
- Use standard modular crimping tool
- 8P8C plug

Part No.	Product No.	1	10	100	250
158115	RJ45 (8P8C)	$1.75	$1.58	$1.42	$1.25

Telecom Splice Connectors

- Provides clean, solid, & rapid connection of wires to keep communication lines free of noise
- Available to handle a wide range of conductor sizes


169746


169754

169754: Y-Type

✳ **Prepackaged: please order in increments of 10, 100 or 1000**

Part No.	Color	Wire Gauge	No. of Conductors	1	10	100	1000
169746	Yellow	22–26	2	✳	$.11	$.10	$.08
169754	Red	19–26	3Y	✳	.17	.15	.13

RS-232-to-RJ11/RJ45 Modular Jack Adapters



Change your RS-232 port to a RJ11 or RJ45 modular jack. This will allow you to use modular phone cable rather than RS-232 cable, thus simplifying networking applications. Comes complete with all necessary wiring and hardware.

Part Number	Cross Ref. No.	Description	1	10	100
204265	TMA-121	DB9 M to RJ11(6P4C)	$1.95	$1.75	$1.49
66181	G9P6	DB9 M to RJ11(6P6C)	2.59	2.35	2.09
66190	G9P8	DB9 M to RJ45(8P8C)	2.25	1.99	1.79
114737	G9S4	DB9 F to RJ11(6P4C)	2.29	1.99	1.79
66202	G9S6	DB9 F to RJ11(6P6C)	2.49	2.25	1.99
66211	G9S8	DB9 F to RJ45(8P8C)	2.89	2.59	2.29
204281	TMA-101	DB25 M to RJ11(6P4C)	2.39	2.15	1.95
66229	G25P6	DB25 M to RJ11(6P6C)	2.95	2.35	1.99
66237	G25P8	DB25 M to RJ45(8P8C)	2.89	2.59	2.29
204273	TMA-105	DB25 F to RJ11(6P4C)	2.39	2.15	1.95
66245	G25S6	DB25 F to RJ11(6P6C)	2.59	2.29	1.99
66253	G25S8	DB25 F to RJ45(8P8C)	2.89	2.59	2.29

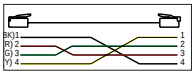
Modular Telephone/Printer Sharing Cables (Gray)

SALE

- RJ11 – 6P2C/6P4C for telephone or network
- RJ11 – 6P6C for telephone or printer sharing
- RJ45 – 8P8C for telephone or modem-dial-up use

Style 1 – Reverse wiring for telephone systems
Style 2 – Straight wiring for networking/ printer sharing

Style 1





Style 2



Low Cost Data/ Phone Cables

Part No.	Conn. Style	Type	Length	Pricing 1	10	100
195733	1	RJ11-6P2C*	7ft.	$.79	$.69	$.59
189940	1	RJ11-6P2C	7ft.	.99	.74	.52
189931	1	RJ11-6P4C	1ft.	.35	.32	.29
196226	1	RJ11-6P4C	7ft.	1.35	.99	.69
115553	2	RJ11-6P4C	7ft.	1.25	1.09	.89
205903	1	RJ11-6P4C†	14ft.	1.25	1.09	.99
115545	1	RJ11-6P4C	25ft.	1.95	1.79	1.59
201232	2	RJ11-6P4C†	35ft.	1.95	1.79	1.59
115588	1	RJ11-6P6C	7ft.	1.09	.89	.75
115617	2	RJ11-6P6C	7ft.	1.69	1.49	1.19
115676	2	RJ45-8P8C	7ft.	1.65	1.39	1.19
115684	2	RJ45-8P8C	14ft.	2.95	2.69	2.25

* **195733:** black † Beige

30-Day Money-Back Guarantee

If you're not satisfied we'll take it back!
Details on page 181

Part Number Color Code: New Sale Refurbished Closeout

Modular Cable Tester with Remote Terminator



Easily read correct pin configuration of 10baseT, 10base2, RJ45/RJ11 modular cables, 258A, TIA568A/568B, token ring, etc. Test installed cables either on wall plate or patch panel from a distance.

- Check for cable continuity, miswiring, open, short, grounding and pin configurations
- Cable adapters: RJ45 M-M, 2 RJ45M-BNCM and BNC F-F
- On-board connectors: 2 RJ45F (tester) and 1 RJ45F (remote)
- Size: 4.0"L x 2.5"W x 1.0"H (Main console)
- Size: 4.0"L x 1.3"W x 1.0"H (Remote)
- Weight: 0.7 lbs. • One-year warranty

Includes: Manual and test cables

Part No.	Description	1	10
145710	Modular cable tester	$79.95	$71.95

Network Cable Tester/Locator

BelMERIT	Range:
50Ω/75Ω Coax	4' to 984'
100Ω twisted pair:	
with RJ45	4' to 328'
with alligator clips	4' to 984'



- Detects opens, shorts, and cable distance
- Measures distance to the open or short
- Tests 50Ω & 75Ω coaxial cable and 100Ω UTP shielded or unshielded cable
- Distance res.: 1 ft.
- Accuracy: open ±(7% +4 ft.); short ±(10% +4 ft.)
- Size: 7.0"L x 2.8"W x 1.2"H
- Weight: 1.5 lbs.

Includes: Manual, alligator clip to BNC adapter (7"L), carrying case and 4 AA alkaline batteries

Part No.	Description	1	10
171352	Network cable tester	$169.95	$152.95

Don't worry about backorders. Over 99% of our products are in stock!

We'll Send It Today!

Just place your order by 6PM EST for same business day shipment

UTP Ethernet Cable Tester



- Connector type: RJ45 8P8C
- System used: 258A, 356A, AT&T/Ethernet 10BaseT
- Miswire, open, short tests
- Size 4.5"L x 2.5"W x 1.3"H

Requires: 9V battery (recommend P/N 151095, pg 168)

Includes: Zipper case

Part No.	Description	1	10
115895	Network Cat. 5 tester	$29.95	$26.95

PC Cable-Check™ Tester



Tests standard computer cables for open, shorted and cross-connected wires. PC Cable-Check™ also tests any combination of D-sub 9-pin, D-sub 15-pin, D-sub 25-pin, Centronics 36-pin printer, plus RJ11 and RJ45 telephone plugs.

Includes: Battery and manual

Part No.	Description	1	10
123916	PC cable-check™	$159.95	$149.95

Telephone Line Analyzer Tester



- Connects between telephone and wall jack
- Line test: verifies DC voltage to phone
- Loop test: verifies line condition from central office to jack
- Ring and cord tests
- One-year warranty
- Size: 4.4"L x 2.5"W x 1.8"H • Weight: 0.8 lbs.

Part No.	Description	1	10
119378	Line analyzer kit	$27.95	$24.95

TRIPLETT Wire Tracing Test Set

LAN "Fox" Generator and "Hound 2" Probe



Fox features:

- Generates 3 distinct tones usable for wire tracing
- LED indicator for continuity
- Line powered in tone mode
- Supplies talk power to a handset or telephone
- Size: 3.6"L x 2.4"W x 1.0"H
- Tone output level: +3dBm, 600Ω
- Max. continuity/talk current: 35mA (shorted leads)

Hound 2 Probe features:

- Streamlined case design • Adjustable volume control
- LED indicator intensifies as signal gets stronger
- Hi-gain & hi-impedance amp • Mylar cone speaker
- Size: 7.2"L x 1.4"W (barrel) x 1.9"Dia. (speaker)

Requires: 9V battery (recommend P/N 151095, pg 168)

Part No.	Description	1	10
155133	Wire tracing set	$79.95	$71.95

EXTECH INSTRUMENTS Tone Generator and Amplifier Probe

For Tracing Wires & Cables



- Tests wire trace, continuity, clear/busy/ringing line, tip/ring identification
- Insulated inductive probe tip prevents shorting conductors
- Selectable continuous or variable tone generation
- Built-in speaker on probe with sensitivity control • Output jacks for both headphones and handsets

Includes: Alligator test leads, modular phone connector cables, 9V battery and carrying pouch

Part No.	Description	1	10
198002	Tone generator/amplifier	$79.95	$71.95

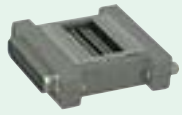
RS-232 Mini-Tester with Status LEDs



Tests any RS-232 (DB25) interface and helps to identify equipment that has failed. Seven bicolor LEDs indicate the status of TD, RD, RTS, CTS, DSR, CD and DTR. LEDs indicate positive (red) and negative (green). No extra power is required. Connectors: male to female DB25.

Part No.	Description	1	10	100
26729	Mini-tester	$10.95	$9.95	$8.95

Miniature RS-232 Breakout Box for Quick Design Changes

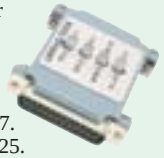


Design new interfaces or modify old ones quickly and easily. Completely self-contained. Connectors: male to female DB25.

Includes: 25 each 22 AWG wire jumpers and machine tool sockets

Part No.	Description	1	10	100
11181	Breakout box	$8.95	$7.95	$6.95

RS-232 Loopback Tester



The tester acts as a data verifier by sending data back to the transmission device. Used for diagnostic testing of RS-232 circuits. 4 LEDs monitor lines 2 to 3, 4 to 5, 6 to 20 and 15 to 17. Connectors: male to female DB25.

Part No.	Description	1	10	100
22728	Loopback tester	$6.95	$6.25	$5.59

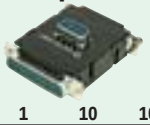
RS-232 Line Status Tester



Identifies simple interface problems which you can repair yourself. Targets the status of lines 2, 3, 4, 5, 6, 8, 11, 19 and 20. Connectors: male to female DB25.

Part No.	Description	1	10	100
14285	Check line tester	$7.95	$6.49	$5.95

RS-232 Signal Adapter/Splitter



- Metal connectors: DB25 female and male, and DB9 male
- Gold-plated contacts

Part No.	Description	1	10	100
105195	Tri-port serial adapter	$7.95	$6.95	$5.95

Flexible Multilink RS-232 Tester & Breakout Box



Visually indicates the status of lines 2, 3, 4, 5, 6, 8, 20 and 22 on the DTE and DCE sides. Provides signal status at a glance. Complete cable "breakout" & reconfiguration. Connectors: DB25 male & DB25 female.

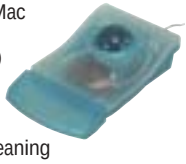
• Cable length: 4" • Size: 3.5"L x 3.3"W x 1.0"H

Includes: handy carrying case, 10 jumper wires and a device wiring chart

Part No.	Description	1	10	25
25945	Tester/breakout box	$22.95	$19.95	$17.95

USB Trackball

Apple® Mac & IBM PC Compatible



- Designed to work with Apple Mac (OS 8.1 or above) and IBM PC (Windows® 98, 2000 or better)
- Large buttons and ergonomic shape
- Removable retaining ring for easy ball removal and roller cleaning
- USB-A male connector
- Tactile micro switches for highly reliable tactile sound and feeling • Detachable wrist rest
- Size: 5.7"L x 4.7"W x 1.8"H • Weight: 1.0 lb.
- *See page 159 for complete specs.*

Part No.	Description	1	10	25
196091	Libra 90i trackball	$19.95	$17.95	$15.95

Replacement Batteries



126754



150965

126754:
- Lithium half AA
- Voltage: 3.6V (Tadiran)
- Amps: .85A-h
- Diameter: .579"

150965:
- Alkaline pack w/ connector (Ray-O-Vac)
- Voltage: 4.5V • Amps: 600mA-h

Part No.	Description	1	10	25	100
126754	Lithium half AA	$7.95	$6.95	$6.25	$5.59
150965	Alkaline pack	8.95	7.95	6.95	6.29

Macintosh® to IBM Monitor Adapters and Cables

Allows use of Macintosh® computer with IBM monitor (DA15 male to HDDB15 female).



126439

126439:
- 10 position DIP-switch supports 6 kinds of signal modes and resolutions
- Size: 2.0"L x 1.5"W
- One-year warranty

183345:
- DA15 female to HDDB15 male
- Size: 2.2"L x 1.6"W x 0.6"H

Part No.	Description	1	10	25
126439	Mac to IBM adapter	$8.95	$7.95	$6.95
183345	Mac to IBM (SVGA)	4.95	3.69	2.59

IEEE 1394 Firewire Cables



175821 175839 175847

Connect your computer to the latest high speed Firewire peripherals.

SALE

- IEEE 1394 compliant • UL approved
- Molded connectors • Length: 6'

Part No.	Description	1	10	25
175821	4-pin M – M	$15.95	$14.49	$12.95
175839	6-pin M – 4-pin M	11.95	10.74	9.49
175847	6-pin M – M	9.95	8.94	8.04

We'll match the advertised price of any like product.

Jameco's Low-Price Guarantee

It's that simple!

Single Button Mouse



- 275 CPI resolution
- Soft, quick, responsive mechanical click button
- ADB connector
- 29" cord
- Size: 4.8"L x 2.4"W x 1.2"H
- One-year warranty

Part No.	Description	1	10	25
150480	Single button	$16.95	$15.49	$13.95

60-Watt Switching Power Supply for Apple® IIGS



- Fully regulated +5VDC @ 6A, +12VDC @ 2A, -5VDC @ 0.5A, -12VDC @ 0.5A
- Input voltage: 115VAC
- 4 mounting holes
- Data included
- 6" output cable with 7-pin Molex connector
- Size: 11.3"L x 3.4"W x 2.2"H
- Weight: 2.3 lbs.
- One-year warranty

Includes: Three pronged removable power cord

Part No.	Description	1	10	25
85518	60W power supply	$22.49	$21.32	$20.99

Panasonic® & SONY® Floppy Disk Drives



SALE

154608

- 1.44MB capacity

154608: Panasonic
- Compatible with late model Quadras, all Power PCs and G3s
- Size: 5.7"L x 4.0"W x 1.0"H

154579: Sony
- Compatible with Mac-II series, SE30 and early Quadras (700, 900, 950)
- Size: 5.8"L x 3.8"W x 1.0"H

Part No.	Description	Wt. (lbs.)	1	10	25
154608	Manual insert	1.2	$24.95	$22.49	$19.95
154579	Auto insert	1.7	43.49	39.25	37.15

Retractable Cables



Auto-reel retractable cables are compact & convenient solutions for loose & tangled cables.

NEW

208362: RJ11 type
- For telephone and modem applications

Includes: Inline coupler

208371: RJ45 type
- For telephone, modem, and networking applications

Includes: RJ45 right angle adapter and RJ45 to telephone outlet adapter

Part No.	Description	Length	1	10
208362	RJ11 cable	9'6"	$9.95	$8.95
208371	RJ45 cable	23'	19.95	17.95

SCSI-I External Subsystem Enclosure

For Multiple HDs, Network CD-Servers, RAIDs





Shown with removable rack (not included)

One 5.25" Full Height or 2-Half Height Bays
- Zinc plated metal body w/ streamlined plastic front panel
- Internal SCSI cables with ID address selectors
- Switching power supply • UL/CSA/TUV approval
- High quality internal SCSI cables
- **SCSI-II & SCSI-III versions can be special ordered**
- Size: 7.1"W x 11.3"D x 6.5"H • One-year warranty

Part No.	Description	Power	Weight (lbs.)	1	10
129761	SCSI-I: 1 full height or 2 half height bays	80W	8.3	$89.95	$80.95

Apple Macintosh® Cables



177519 10604 130024 SALE 181382 73162 175417

Printer Cables

Part No.	Description	1	10	50
177519	3' mini DIN8M	$.75	$.65	$.55
10604	6' mini DIN8M	5.69	5.19	4.59
130024	10' mini DIN8M	5.69	5.19	4.59
181382	6' mini DIN8M to DB9M	3.29	2.95	2.59

SCSI Cables

Part No.	Description	1	10	50
73162	6' Centronics 50M-50M	$6.95	$5.19	$3.65
72848	1.5' 50-pin SCSI socket ribbon cable	4.95	4.45	3.95
129971	SCSI-I terminator	.25	.22	.21

USB-A to USB-B Cables

Part No.	Description	1	10	25
175417	3' cable	$4.49	$3.99	$3.59
169359	6' cable	4.95	4.49	3.95
169367	10' cable	5.95	5.25	4.59

Adapter Cable

Part No.	Description	1	10	50
180558	1.5' mini DIN8M to DB25M	$.89	$.79	$.69

Part Number Color Code: New, Sale, Refurbished, Closeout

ISA Fast SCSI-II Controller



- Compatible with DOS, Windows®, Windows® NT, Windows® 95, OS2 Netware, and SCO Unix
- Internal and external SCSI-II connectors
- Size: 6.3"L x 2.9"W
- Weight: 0.6 lbs.
- One-year warranty

Includes: Setting sheet, ribbon cable, and software (3.5" disk)

Part No.	Description	1	10
149294	ISA SCSI-II controller	$44.95	$39.95

PCI Ultra-II SCSI Controller



- AIC-7890AB chipset
- Windows® 95/NT, NetWare, OS/2 compatible
- Plug & Play design
- Internal and external Ultra-II SCSI 68-pin connectors
- Supports Ultra-II SCSI peripherals at speeds up to 80Mbytes/sec. or Ultra/UltraWide peripherals up to 40Mbyte/sec.
- Supports up to 15 SCSI peripherals
- Size: 6.0"L x 3.5"W
- Weight: 0.3 lbs.

SALE

Part No.	Description	1	10
191513	Ultra-II SCSI	$139.95	$124.95

3-Way Telephone Line Adapter

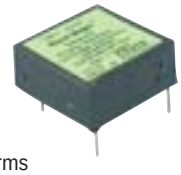


- Connect two or three devices (e.g. telephone, fax, modem) to one line
- Internal switch prevents interruptions; when one line is in use other lines cannot be used
- For standard telephone lines
- Size: 2.5"L x 1.8"W x 0.9"H
- Cord length: 6' 7.5"

SALE

Part No.	Description	1	10
144848	3-way telephone adapter	$7.99	$7.59

Black Magic Telephone Ringing Generator



Switching inverter that produces low-frequency alternating current to signal telecom ringers or equivalents.

- Frequency: 20Hz
- Series resistor: 300Ω
- Nominal output voltage: 86 Vrms
- No reverse polarity protection

Part No.	Product No.	1	10	25
145816	LBMR12	$26.95	$24.49	$21.95

ZOOM ISA 33.6kbps Internal Fax/Modem



- 16550 UART with 16-byte bidirectional buffer for faster data throughput
- AT command compatible
- Group 3 FAX, class 1 and 2
- True V.34 (ITU international standard) 28.8kbps technology
- Supports V.34 ITU standard and V.Fast Class
- V.17 protocol for 14.4kbps fax capability
- V.42bis and MNP 5 data compression
- Ability to manually force MNP 5, V.42bis, V.42 or MNP 4
- Auto negotiation of data compression and error correction • Size: 4.6"L x 2.5"W

Part No.	Description	1	10
181796	Internal fax/modem	$24.95	$22.49

QUIKLINK Automatic Telephone Ring Down Unit



- Applications: elevator and door entry phones; in-office and off-premise emergency hotlines; tie lines between phones, PABX and Key systems; CO line simulators for sales demonstrations; testing rings, answering, and signal path functions in telecom repairs, installation and production
- Ringing power: 70V @ 20Hz modified square wave
- Power input: 12VAC @ 700mA (max.)
- Line feed type: two wire unbalanced
- Max. loop resistance: 600Ω
- Termination: 4-40 screws
- LED hook status indicator; ringing cadence: continuous/1 second on 1 sec. off/2 sec. on 2 sec. off/2 sec. on 4 sec. off; additional power input: 20-28VDC @ 300mA max.; RJ11 terminations

Part No.	Dimensions	1	10
179936	4.2"L x 2.5"W x 0.5"H	$99.95	$89.95

AT&T Fax Switcher



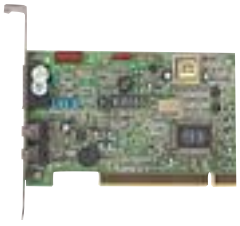
SALE

- Features automatic ring reduction, answering system transfer and transfer timer, extension in use detection and calling tone detection, dial pulse / rotary transfer, unanswered call transfer, reverse modem detection, remote call alert, line interrupt protection, calling tone detection
- System capacity: line-in, answering machine, phone, modem/fax connection
- Size: 4.9"L x 5.1"W x 1.4"H • Weight: 1.8 lbs.

Includes: 12VAC @ 830mA power supply, 6' 11" telephone cable, and manual

Part No.	Product No.	Description	1	10
152004	ATT200A	Fax switch	$24.95	$17.95

PCI 56kbps Fax/Modem/Voice



- Motorola 62412-51 chipset
- Data ITU-T V.90 and 56Flex compatible
- ITU-T V.34; V.32bis; V.32; V.22bis; V.22
- V.42bis and MNP-5 data compression compatible
- Full duplex speaker phone
- V.42 and MNP2-4 error correction compatible
- V.80 (H.324 video conferencing interface compatible)
- V.17 (14.4kbps Fax)
- Voice/audio mode
- Size: 4.7"L x 2.8"W • Weight: 0.6 lbs.

Includes: Manual, cable and drivers on CD-ROM

Part No.	Description	1	10
172881	PCI 56kbps modem	$29.95	$26.95

PHOEBE Modems

- Create voice and fax mail boxes w/ unique greetings
- Five fault locating tests
- Ultra reliable data transfer using V.42 bis/MNP5 error correction • FCC compliance
- PC/XT/AT and Pentium® compatibles

External 56kbps Fax/Modem



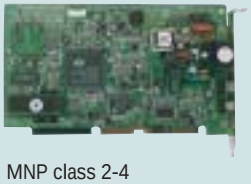
- 9-pin serial interface
- Data compatible to ITU-T V.34; V.32bis; V.32; V.22bis; V.22; V.21; Bell 212A and 103
- Fax compatible to ITU-T V.17; V.29; V.27ter; V.21
- Error checking compatible to V.42bis and MNP 2-4
- Data compression compatible to V.42 and MNP 5
- Enhanced AT command set, Fax class 1 and 2
- Data compatible to IUT-T V.90 and K56 Flex
- Size: 5.9"L x 4.6"W x 1.3"H
- Weight: 2.3 lbs.

Includes: Serial and phone cable, CD-ROM drivers and manual, and 12VAC @ 1A power supply

Part No.	Description	1	10
145031	Serial modem (Rockwell)	$69.95	$62.95

ISA 56kbps Internal Fax/Modem

With Voice Mail and Speakerphone



- Modulation standard: V.90, X2, V.34, V.32bis, V.32, V.29, V.27ter, V.22bis, V.23, V.22, V.21, V.17, Bell 212/103
- Compression: V.42bis, MNP class 5
- Error correction: V.42, MNP class 2-4
- Fax command: EIA/TIA 578 class I
- 16550 Compatible UART
- COM ports: 1, 2, 3, 4
- IRQ 3, 4, 5, 7, 10, 11, 12
- Fax group III
- Size: 5.8"L x 3.4"W
- Weight: 0.8 lbs.

V.90 Dual Mode!

Includes: CD-ROM drivers and cable

Part No.	Description	1	10
145023	ISA 56kbps int. modem ...	$49.95	$44.95



Opening an account is easy!!

Corporate Customers

Call 1-800-831-4242 for details today

PHOEBE PCI Ethernet Card

10/100Mbps, Auto Detect

SALE



173606

- 32-bit PCI bus mastering for high throughput and low CPU command
- Complies with IEEE 802.3 ethernet standards
- Full duplex and half duplex operation • RJ45
- Auto negotiation functions
- Plug & Play installation
- Auto set IRQs & I/O address
- LED indicators for link & activity status

Includes: 3.5" disk drivers and manual

Part No.	Description	1	10	25
173606	RJ45 (10/100Mbps)	$14.95	$11.25	$7.85

ISA Ethernet Card

10Mbps



- Supports Novell NetWare, Windows® NT, LAN Manager, UNIX TCP/IP, Windows® 95/3.1
- LED indicators for diagnostics • FCC class approved

Includes: 3.5" disk driver

Part No.	Description	1	10
144936	RJ45 and BNC	$14.95	$13.49

PCMCIA Type II Combo BNC and RJ45 Ethernet Card

10Mbps

SALE



- 10BaseT/10Base2 adapter
- Supports Novell Netware® 3.x/4.x, Microsoft® LAN Manager, Windows® for Workgroups 3.11, Windows® 3.1 and Windows® NT 3.51, Windows® 95 and packet driver
- Weight: 0.8 lbs. • One-year warranty

Includes: RJ45 and BNC connectors, manual and 3.5" disk drivers

Part No.	Description	1	10
132581	PCMCIA network card	$33.85	$30.47

Network Starter Kit

Everything you need to set up a simple network. No need to worry about compatibility or acquiring other accessories.



NEW

- Single chip controller onPCI network card complies to bus specification 2.1
- Conforms with IEEE standards
- Shielded RJ45 connector on network card
- On-board socket for an optional remote boot ROM
- LED diagnostic to monitor network conditions
- 5-port hub supports 10/100Mbps
- Auto negotiation capability
- Up-link port for expansion
- Power, link/active/speed, FDX/collision indicators for network status

Includes: Two PCI network cards, two 15 foot straight-through cables, 5-port mini hub, 7.5VDC @ 1A wall transformer, 3.5" diskette drivers, and manual

Part No.	Description	1	10
208469	Network starter kit	$64.95	$58.50

PCI Ultra ATA/66 and Enhanced IDE HD/CD-ROM Controller

Supports 2 Ultra ATA/66 and/or 2 EIDE Devices

SALE



- True Plug & Play support
- Ultra 66 BIOS on board supports Ultra ATA66/ ATA33, EIDE, & ATA-2 devices
- Compatible with DOS 5.0 and higher, Windows® 3.x/95/98/ NT3.x/NT4.x • Size: 4.8"L x 2.1"W

Includes: 80 wire/40-pin cable (for Ultra ATA/66) and 3.5" drivers

Part No.	Description	1	10
167329	Enhanced IDE	$34.95	$31.49

PCI Ultra ATA/133 Controller Card

Supports IDE devices to transfer data at maximum burst rate of 133Mbytes / sec. Backward compatible with all ATA / 66 and ATA / 100 IDE devices.



NEW

- Supports 4 IDE devices
- 133Mbytes/sec burst data rate on PCI local bus and IDE bus
- Enhanced BIOS on board
- Widest range of compatible IDE/ATAPI devices
- Supports Windows® 98/ME/NT4.0/2000/XP
- Size: 5.2"L x 2.5"W

Includes: 80-wire/40-pin cable, 3.5" drivers, and manual

Part No.	Description	1	10
208021	Ultra 133 controller card	$49.95	$47.45

Ethernet Hubs

10Mbps



153891

153891: 5-port

- Connectors: 5 RJ45 (TP); 1 uplink (TP cascade)
- Size: 5.4"L x 3.8"W x 1.1"H

153904: 8-port

- Connectors: 8 RJ45 (TP); 1 uplink (TP cascade); 1 BNC
- Size: 7.8"L x 4.0"W x 1.2"H

Includes: Manual and power supply

Part No.	Description	Wt. (lbs.)	1	10
153891	10BaseT 5-port	1.4	$39.95	$35.95
153904	10Base2/T 8-port	1.7	49.95	44.95

Token Ring-to-RJ45 Adapter



- Easy connection to UTP cabling
- Use type A or B style data connector with RJ45 jack
- Determine cable length (flexibility)
- Dimensions: 2.5"L x 1.0"W

Part No.	Description	1	10	100
125461	Token ring	$11.95	$10.75	$9.75

Short Haul Modem



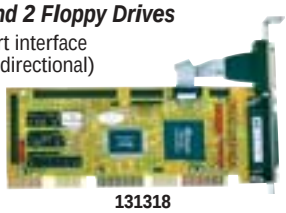
ATEN

- Up to 38,400 baud
- Will communicate over 6.3 miles of cable
- No external power required
- DCE/DTE selectable
- Xon-Xoff or hardware handshaking
- RS-232 interface (DB25 female)

Part No.	Description	1	10	25
116581	Short haul modem	$29.95	$26.95	$23.95

ISA IDE Super 16-Bit I/O Plus

Supports 2 IDE and 2 Floppy Drives



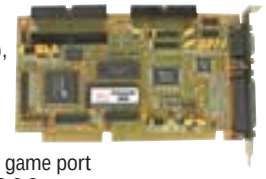
131318

- Parallel printer port interface (P/N 131318 is bidirectional)
- Game port
- Two RS-232 serial ports
- UART emulation: **67061:** 16450; **131318:** 16550
- Weight: 0.9 lbs. • One-year warranty

Includes: Manual and cables

Part No.	Description	1	10
67061	16450 UART I/O	$14.95	$13.49
131318	16550 UART I/O	29.95	26.95

ISA EIDE Super I/O Controller



- Supports 4 EIDE devices (HD, CD-ROM, tape drive), 2 floppy drives, 2 parallel ports, SPP/EPP/ECP, 2 serial ports, 16550 compatible, 1 game port
- Compatible with DOS 6.2, Windows® 3.1, Windows® Workgroups 3.11, OS/2 and Netware 3.1x, 4.01
- Intelligent ROM BIOS auto-configures EIDE ports
- Size: 6.5"L x 4.0"W
- Weight: 1.1 lbs.
- One-year warranty

SALE

Includes: Manual and cables

Part No.	Description	1	10
138624	ISA-EIDE controller	$43.34	$38.99

ISA Controller Card



- 16-bit data transfer which is fully compatible with IBM PC/AT interface
- Supports two floppy disk drives (360k, 720k, 1.2Mb, 1.44Mb)
- Controls two "AT BUS" hard disk drives
- High bandwidth host interface works up to 16MHz host I/I clock
- Size: 5.5"L x 2.1"W

NEW

Part No.	Description	1	10
206316	Ultra 133 controller card	$19.95	$17.95

Ethernet 10Base5 to 10BaseT Transceiver

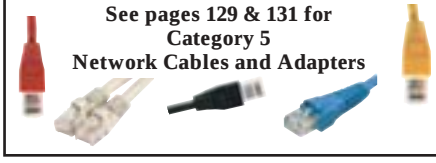
10Mbps



- For 10Mbps CSMA/CD LAN
- FCC class A approved
- LED indicators for power, link, receive and collision
- Size: 2.7"L x 1.6"W x 0.8"H
- One-year warranty

Part Number	Mfr. Cross Ref. No.	Description	1	10
130315	JE5001	10BaseT trans.	$31.95	$28.95

See pages 129 & 131 for Category 5 Network Cables and Adapters

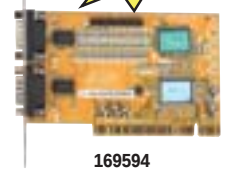


Part Number Color Code: New Sale Refurbished Closeout

PCI Ultra High-Speed I/O

Serial 16C550 and Parallel Port

SALE



169594

- 32-bit PCI bus with PCI bus 2.1 specification compliant
- Serial ports are software configurable with throughputs up to 921.6kbps
- BPP/SPP mode compliant
- Windows® 95/98/NT 4.0 drivers supported

169594: 2 serial DB9M on card and 1 parallel DB25F panel bracket assembly

Part No.	Description	1	10
146691	Single parallel	**$39.95**	**$35.95**
163707	Dual parallel	**49.95**	**44.95**
146667	Dual serial (16C550)	**49.95**	**46.95**
169594	2 serial (16C550) and 1 parallel	**49.95**	**47.49**

PCI High-Speed I/O Combo Card

2 Serial 16C650 and 1 Parallel ECP/EPP Ports



- 16C650 UART compatible
- 2 ultra high-speed RS-232 ports and 1 high-speed ECP/EPP parallel port
- Serial port transfer rate up to 921kB/sec. and parallel port up to 2MB/sec.
- 32-byte FIFO buffer
- Supports IRQ sharing
- 32-bit PCI interface
- Plug & Play ready
- 2 DB9 male & 1 DB25 female connector w/ bracket
- Size: 4.7"L x 2.9"W • Weight: 0.6 lbs.

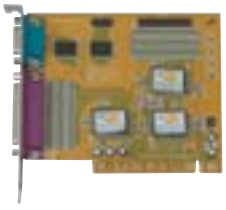
System requirements: 486/586 and higher compatibles; Windows® 95/98/NT/2000

Includes: Manual, DB25F panel bracket assembly and drivers on CD-ROM

Part No.	Description	1	10
172013	2 serial/1 parallel	**$59.95**	**$53.95**

PCI 4-Port I/O

2 Serial 16C650 and 2 Parallel ECP/EPP/SPP/BPP Ports



- Plug & Play compliant
- Serial port: SUN1889 chipset; 32-byte FIFO; compatible with 16C450/550/650 chip; RS-232 IEEE standard interface; 921kb/sec. transfer rate
- Parallel port: SUN1689 chipset, 32-byte FIFO; ACC3203/ST78C36/HT6535 compatible chips; ECP/EPP/SPP IEEE standard interface; 2Mb/sec. transfer rate
- 2 DB9 male connectors and 2 DB25 female connectors
- Size: 4.7"L x 3.6"W
- Weight: 0.8 lbs.

System requirements: 486/Pentium® & higher comp. Windows® 95/98/NT/2000; available PCI slot

Includes: Manual, cable and CD-ROM drivers

Part No.	Description	1	10
173260	PCI 4-port	**$59.95**	**$55.95**

PCMCIA RS-232 Interface

PC card / PCMCIA-based serial port card.



- Low cost single port RS-232 interface
- Uses 16550 UART
- 5, 6, 7 or 8 data bits
- Odd, even or no parity
- 115k baud data rates
- Configured as COM1, COM2, COM3 or COM4
- PCMCIA type II compliant

Includes: 1' cable

Part No.	Description	1	10
164451	PCM-COM232 card	**$99.95**	**$89.95**

Bidirectional Serial/Parallel Converter

115.2kbps, 512kb Buffer



- One DB25 female connector, one Centronics 36-pin male connector
- DCE/DTE selectable
- Fully compatible with Windows® 95
- Baud rate: 300bps – 115,200bps
- FCC class A certified, CE certified
- LED indicator for parallel busy status
- Stop bits: 1 or 2 • One-year warranty
- Size: 3.8"L x 2.4"W x 1.0"H • Weight: 0.8 lbs.

Includes: 9VAC @ 200mA adapter

Part No.	Description	1	10	50
182983	Converter	**$54.95**	**$49.95**	**$45.95**

16-Bit Active-Slot PC Extension Interface

Gives you three additional expansion slots.



- Compatible with 8 or 16-bit ISA cards
- Supports: MONO/EGA/ VGA/FDC/HDC, game and most I/O
- Control card installs inside your PC with four external slots • One-year warranty
- Two mounting brackets to interface the unit via 37 and 62-pin cables
- Isolates system providing short circuit protection
- Can insert and remove cards while power is on
- Can be powered off the PC or externally using 6-pin connection (P/N 78318 & P/N 78326, pg 125)
- Size: 9.5"L x 6.8"W x 1.0"H • Weight: 5.5 lbs.

System requirements: IBM PC/XT and higher comp.

Part No.	Description	1	10
131238	PC slot extender unit	**$279.95**	**$251.95**

Parallel Port Complete Book



Lakeview Research A practical, hands-on approach to PCs and their connections to parallel ports. This state-of-the-art book offers many tips on how to get the most out of your parallel port. Enhanced (EPP) and extended capabilities (ECP) types are covered. (343 pages, 1999)

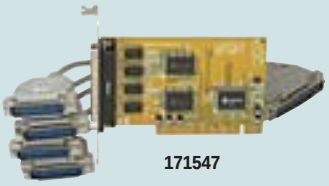
- Windows® 3.1 and Windows® 95 • PC to PC links
- Selecting cables • Size: 7.0" x 10.0" • Wt.: 1.4 lbs.

Includes: 3.5" diskette

Part No.	Description	1	10
138261	Parallel Port Complete	**$39.95**	**$35.95**

PCI High-Speed Multi-Port Serial I/O

2, 4 or 8 16C650 Serial Ports



171547

- 32-byte FIFO
- Plug & Play compatible
- Standard RS-232 interface
- Transfer rate: up to 921kb/sec.
- Supports IRQ sharing

172005: Dual 16C650 Serial Ports
- Two DB9 male connectors
- Size: 4.7"L x 2.8"W • Weight: 0.5 lbs.

Includes: Manual and drivers on CD-ROM & floppy

171547: Quad 16C650 Serial Ports
- Size: 4.7"L x 2.8"W • Weight: 0.9 lbs.

Includes: Manual, cable (37-pin male to 4 DB25 male) and drivers on CD-ROM

171660: Eight 16C650 Serial Ports
- Size: 6.5"L x 3.6"W • Weight: 1.8 lbs.

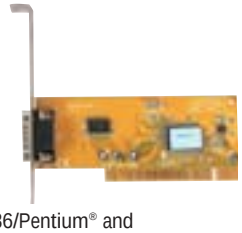
Includes: Manual, internal cable with bracket, 2 cables (37-pin male to 4 DB25 male) and drivers on CD-ROM

System requirements: 486 and higher compatible, Windows® 95/98/NT/2000

Part No.	Description	1	10
172005	2-port PCI serial	**$59.95**	**$53.95**
171547	4-port PCI serial	**129.95**	**116.95**
171660	8-port PCI serial	**179.95**	**161.95**

PCI Single-Port Serial I/O

Single 16C550 Port



- Plug & Play ready
- Transfer rates up to 921kb/sec.
- 32-bit PCI bus interface
- 32-byte FIFO
- Supports IRQ sharing
- Size: 4.8"L x 1.8"W
- One-year warranty

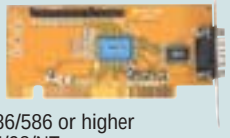
System requirements: 486/Pentium® and higher compatibles; Windows® 95/98/NT/2000

Part No.	Description	1	10
171361	Single serial	**$38.95**	**$35.95**

ISA 1 & 2-Port High-Speed Serial I/O

Single & Dual 16C650 Serial Ports

171993



- 32-byte FIFO
- IRQ (3, 5, 7, 9, 10, 11, 12, 15) and address jumper configurable
- DB9 male connector
- Size: 5.0"L x 2.0"W

System requirements: 486/586 or higher compatible, Windows® 95/98/NT

Includes: Manual and drivers on CD-ROM

Part No.	Description	1	10
171993	Single serial	**$17.95**	**$15.95**
172380	Dual serial	**19.99**	**18.99**

Phone 1-800-831-4242

Order Anytime 24x7x365

Online www.Jameco.com

ISA High-Speed 4-Port Serial I/O

Quad 16C650 Serial Ports



- 32-byte FIFO
- 16-bit ISA interface
- MS-DOS, Windows® 3.x, 95 and NT compatible
- Four 16C650 ultra high-speed serial ports
- Supports COM 1-8 & IRQs 3-15 (jumper selectable)
- Supports IRQ sharing • One-year warranty
- Size: 6.2"L x 4.3"W • Weight: 1.2 lbs.

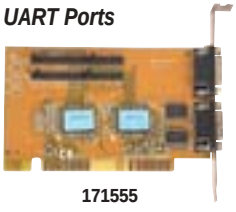
System requirements: IBM PC/AT & AT compatibles

Includes: 37-pin male to 4 DB25M cable and manual

Part No.	Product No.	1	10
152291	4042A	$54.95	$49.95

ISA 1 & 2-Port High-Speed Serial I/O

Single & Dual 16C650 UART Ports



171555

- 16-byte FIFO
- Transfer rates up to 921kb/sec.
- IRQ (3, 5, 7, 9, 10, 11, 12, 15) and address jumper configurable
- Weight: 0.5 lbs.

171504: Single High-Speed Serial Port

- RS-232 V24 standard serial interface
- 1 DB9 male connector • Size: 5.0"L x 2.0"W

171555: 2 High-Speed Serial Port

- 2 DB9 male connectors • Size: 5.0"L x 2.7"W

System requirements: 486/586 and higher compatibles; Windows® 95/98/NT/2000

Includes: Manual and drivers on CD-ROM

Part No.	Description	1	10
171504	Single serial	$18.49	$16.89
171555	Dual serial	24.95	22.49

ISA 4-Port Serial I/O

Quad 16C550 Serial Ports



- High-speed 16C550 UARTs with 16 or 32-byte FIFO
- 4 serial ports; 2 each DB9M and DB25M
- IRQs: 3, 4, 5, 9, 10, 11, 12, or 15
- Weight: 0.7 lbs.
- One-year warranty

COM Address		COM Address	
1	3F8	5	3F0
2	2F8	6	3E0
3	3E8	7	2E0
4	2E8	8	260

System requirements: IBM AT & higher compatibles

Includes: DB25 male and DB9 male panel bracket assembly and instruction sheet

Part No.	Description	1	10
132572	4-port hi-speed serial	$59.95	$53.95

Serial Port Complete



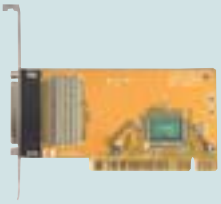
Lakeview Research RS-232 & RS-485 are the most versatile, inexpensive interfaces for linking, but the hardware & programming are often misunderstood. This book provides you with everything you need to design, program, install and troubleshoot the links you set up. (306 pages, 1998) • Size: 7" x 10" • Weight: 1.3 lbs.

Includes: 3.5" diskette

Part No.	Description	1	10
154771	Serial Port Complete Book	$39.95	$35.95

PCI Ultra High-Speed Parallel

Single Ultra High-Speed Port



- Supports ECP and EPP
- 32-byte FIFO
- Transfers data up to 2MB/sec.
- Supports IRQ sharing
- Plug & Play ready
- 1 DB25 female connector
- 32-bit PCI interface
- Size: 4.7"L x 2.2"W
- Weight: 0.5 lbs

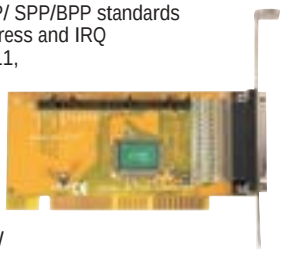
System requirements: 486/586 and higher compatibles; Windows® 95/98/NT/2000

Includes: Manual and drivers on CD-ROM

Part No.	Description	1	10
171926	PCI single parallel	$39.95	$35.95

ISA High Speed Parallel

21.4MB/Sec. Bidirectional



- Supports ECP/EPP/ SPP/BPP standards
- Printer mode, address and IRQ (3, 4, 5, 7, 9, 10, 11, 12, 15) jumper configurable
- 32-byte FIFO
- DB25 female connectors
- Supports DACK 1-3 and DRQ 1-3
- Size: 5.0"L x 2.2"W
- Weight: 0.5 lbs.

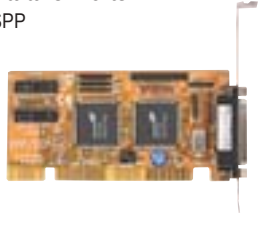
System requirements: IBM PC/AT compatible with 16-bit ISA slot

Includes: Manual and drivers on CD-ROM

Part No.	Description	1	10	25
171651	Single parallel	$14.95	$12.95	$11.95

ISA 2-Port Parallel

Dual Bidirectional Parallel Ports



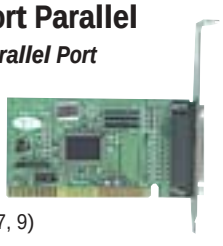
- Supports ECP/EPP/SPP
- Select from IRQs: 3, 4, 5, 7, 9, 10, 11, 12, or 15
- Address selectable to LPT1 - LPT6
- Print mode jumper selectable
- Weight: 0.6 lbs.
- One-year warranty

System requirements: IBM AT & higher compatibles

Part No.	Description	1	10	25
132214	2-port printer	$24.95	$22.45	$19.95

ISA Single-Port Parallel

Single Bidirectional Parallel Port



- Single standard and bidirectional port
- Jumper selectable for printer address and port (LPT1 - LPT3)
- Jumper selectable for IRQ addressing (3, 4, 5, 7, 9)
- Size: 4.0"L x 2.0"W
- One-year warranty

System requirements: PC/XT/AT and higher

Part No.	Description	1	10	25
155660	Printer card	$19.95	$17.95	$14.95

PC Diagnostic Software "Quicktech '98"

Self-booting software for 386, 486 and Pentium® II/MMX/III/AMD Athlon



- Verify proper operation and troubleshoot failures of all major PC components: hard drives (MFM, RLL, IDE, SCSI); floppy drives; base, extended and external cache RAM; VGA/EGA/VESA compliant video cards; keyboard; monitor; printer; and I/O ports
- 48 hour burn-in mode for lengthy testing
- Floppy drive head cleaning function

Includes: Loopback testers for DB9 and DB25 serial and DB25 parallel ports, manual and 3.5" disk

Part No.	Description	1	10
134826	QuickTech '98 software	$132.95	$119.95

Diagnostic Card for PCI-Bus Systems



This is the first diagnostic card for monitoring Power-On-Self-Test results in systems using PCI-Bus architecture.

- Plugs into any PCI I/O slot
- Digital indicators for every POST code error
- LEDs for monitoring power (DC): +12, -12, +5, +3
- LEDs for clock and reset failure
- Comprehensive manual w/ error codes from all major BIOS manufacturers including AMI, AWARD, PHOENIX and more
- One-year warranty

Part No.	Description	1	10
135108	PCI-POST diagnostic card	$219.95	$197.95

Computer Monitor & NTSC Tester

Mac, PC and TV



- Tests VGA, Super VGA, Mac monitors and TVs
- Checks full-field color bars, color raster, dots (static and dynamic convergence), cross-hatch and windows (power supply regulation, checks for a clear distinction between white and black portions)
- Connectors: HDDB15F, DA15F
- Two video connectors for TV, composite and S-video
- Power with either a 9V battery or an external DC adapter (recommend P/N 151095, pg 168 or P/N 100845, pg 61)
- One-year warranty
- Size: 5.5"L x 3.0"W x 1.4"H • Weight: 0.7 lbs.

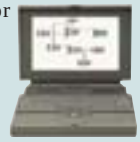
Part No.	Description	1	10
149729	Computer monitor tester	$189.95	$179.95

30-Day Money-Back Guarantee

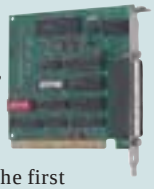
If you're not satisfied we'll take it back!
Details on page 181

Part Number Color Code: New Sale Refurbished Closeout

The Basics of PC-Based Data Acquisition, Analysis, and Control



Using your PC as a platform for the acquisition, analysis and control of physical data is both powerful and economical. Simply adding a card with analog and digital data acquisition and control capability, or a module connected via a serial port, along with easy-to-use software, turns your desktop or laptop computer into a sophisticated instrumentation system.



A PC-based data acquisition and control system is comprised of five fundamental elements: sensors / transducers, analog-to-digital conversion with signal conditioning, digital sensing, analog and / or digital control, and software. The first consideration is the physical parameter or condition you wish to measure & record; it could be temperature, pressure, acceleration, vibration, sound intensity, and much more. Transducers convert physical parameters to electrical signals. Many transducers require signal conditioning (amplification, filtering, etc.), which is usually provided by the data acquisition card.



For most PC-based data acquisition systems, analog-to-digital conversion is typically handled with a plug-in board or card – commonly known as DAQ boards (PCI, ISA or PCMCIA type). Alternately, a DAQ module connected via a serial port can be used. The key function of a DAQ board or module is to convert the analog signals coming in from the sensors into digital signals with which the PC can deal. The primary specifications to look for are number of channels, resolution, and sample rate.

See Sensors On Page 79



Virtually all DAQ boards and modules also have the capability of sensing digital input signals; for example, switch contacts. These signals are often used to initiate acquisition of analog data.

Once the data has been acquired & processed by the PC, the analog and digital output capability of a DAQ board can be used for control; i.e., "closing the loop".

A popular software program, SoftWIRE, is built in two windows. The first window holds the graphical program while the other window holds the user interface on a Visual Basic form.

12-Bit Data Acquisition Module w/ RS-232 Interface



This data acquisition module offers 11 channels of 12-bit A / D inputs, 3 digital inputs, and 3 digital outputs. A / D inputs measure voltages from 0 to 5VDC. Digital inputs sense On / Off states with a range of –30 to +30VDC. Digital outputs control devices requiring 0 to 5VDC input voltage. Automatic baud rate detection from 1200 to 9600 baud with format of 8 data bits, 1 stop bit, and no parity.

- 120 samples/sec. for a single channel
- I/O line connectors: DB25 female
- RS-232 connector: DB25 female
- Logging utility

Requires: 12VDC power supply (recommend P/N 100095, pg 61)

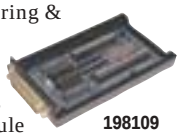
Part No.	Description	1	10
198088	RS-232 12-bit	$58.95	$52.95

16-Channel Digital I/O & Buffer Modules w/ RS-232 Interface



198096

This digital module can control up to 16 digital inputs or 16 digital outputs. Automatic baud rate detection from 1200 to 9600 with a format of 8 data bits, 1 stop bit, and no parity. The digital I / O buffer module (P / N 198109) provides buffering & increased power handing (100mA). It offers I / O lines that can handle control voltages up to 50VDC. Plugs directly into the digital module through the DB25 connector. Enclosure for the digital I / O buffer module is available.



198109

- RS-232 connector: DB25 female
- I/O line connector: DB25 female
- Demo program included

Requires: 12VDC @ 35mA power supply (recommend P/N 100095, pg 61)

Part No.	Description	1	10
198096	RS-232 16-channel I/O	$58.95	$52.95
198109	Digital I/O buffer	58.95	52.95
198686	Enclosure for P/N 198109	14.95	13.45

PC-Based Data Acquisition Software

Universal Library & Graphical Programming Software for Visual Basic



194010: The Universal Library is a library of 65+ syntax commands in different programming languages. The library provides these commands plus the syntax format in its respective language.

194044/194036/194028: SoftWIRE is a graphical programming package for Visual Basic; one window holds the graphical program while the other holds the user interface on a Visual Basic form. By simply using the 130+ functions included with the software, you can click on the function, make connections to the controls with wires, provide your options, then run the program. While you are creating all these functions and connections, the software also provides the code in Visual Basic.

System requirements: PC with Pentium® 90 or higher; Windows® 95/98/2000/ME/NT4.0; Microsoft® Visual Basic 6.0 or later; VGA or higher resolution monitor; any Measurement Computing DAQ or GPIB board

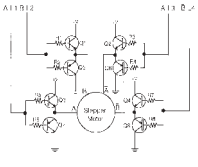
Part No.	Description	1	5
194010	Universal Library	$48.95	$43.95
194044	SoftWIRE4/VB-Student	48.95	43.95
194028	SoftWIRE/VB-PPD	493.95	443.95

12-Bit Analog/Digital DAC and Stepper Motor Control Board



- High speed serial port interface up to 230, 400 bits/sec.
- 4 channels with precision signal conditioning – 100mV, 2.5V and 5.0V input
- 24-digital TTL I/O 11 analog channels with 12-bit resolution
- PWM, period and stepper motor functions
- Free 32-bit DLL, OCX and Labview driver for rapid system development
- Size: 6.0"L x 2.6"W • Weight: 0.7 lbs.

Driver Schematic



Requires: External driver circuit parts kit (P/N 208573, below) – 4 ea. 1kΩ & 330Ω 1/4W resistors, MJE 3055T transistor and 1N4003 diode

Part No.	Description	1	10
109911	Analog/digital DAC board	$139.95	$125.95
208573	Ext. driver ciruit parts kit	3.49	3.49

Data Acquisition Direct to Excel



DAS-Wizard is an add-in for Excel that controls your data acquisition board and places your measurements directly into the cells of an Excel worksheet. A simple dialog box allows you to configure the data acquisition board and set the range of cells to place measurements.

System requirements: PC with Pentium® 90 or higher; Windows® 95/98/2000/ME/NT4.0; Microsoft® Visual Basic 6.0 or later; VGA or higher resolution monitor; any Measurement Computing DAQ board

Part No.	Description	1	10
197851	DAS-Wizard	$148.95	$133.95

Analog & Digital Data Acquisition and Control Boards

- 8-channel A-to-D • 12-bit resolution
- ±5V input range • Z_{in}: 50MΩ
- Software available on page 138

Includes: InstaCal: installation and test utilities software

PCI Bus

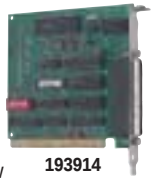
- Digital I/O: 3 input/4 output
- Three 16-bit counters
- 50kHz sample rate
- Data transfer: S/W polled, may be IRQ driven
- For terminal board, enclosure and cable, see group number 1 below



Part No.	Product No.	1	5
193922	PCI-DAS08	$247.95	$222.95

ISA Bus

- Digital I/O: 8 input/8 output
- 2-channel D-to-A (AO version only) 12-bit, ±5V output range
- 20kHz sample rate
- For terminal board, enclosure & cable, see group number 1 below


193914

Part No.	Product No	1	5
193906	CIO-DAS08/JR	$178.95	$169.95
193914	CIO-DAS08/JR-AO	238.95	226.95

PCMCIA/PC-Card Bus

- Digital I/O: 5 input or output
- 20kHz sample rate
- For terminal board, enclosure and cable, see group number 2 below



Part No.	Product No.	1	10
197886	PCM-DAS08	$298.95	$268.95

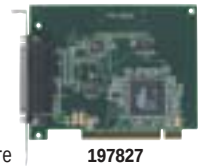
Digital Input/Output Boards – TTL Level

- Output: 2.5mA @ 0.45V sink, 2.5mA @ 2.4V source (P/N 197835: 64mA sink, 15mA source)
- Software available on pg 138

Includes: InstaCal: installation and test utilities software

PCI Bus

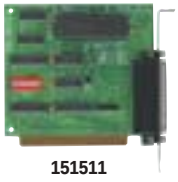
- 24-bit digital I/O
- 3 each 8-bit ports: P/N 197827
- 2 each 8-bit and 4-bit ports P/N 197835
- For terminal board, enclosure and cable, see group number 1 below


197827

Part No.	Product No.	1	10
197827	PCI-DIO24	$88.95	$79.95
197835	PCI-DIO24H	148.95	133.95

ISA Bus

- 24-bit (P/N 151511) or 48-bit (P/N 136784) digital I/O
- 8-bit ports
- For terminal board enclosure and cable, see group number 3 below


151511

Part No.	Product No.	1	10
151511	CIO-DIO24	$82.95	$78.95
136784	AX5214H	99.95	89.95

PCMCIA/PC-Card Bus

- 48-bit digital I/O
- 8-bit ports
- For terminal board enclosure and cable, see group number 3 below



Part No.	Product No.	1	10
197894	PC-Card-DIO48	$198.95	$178.95

Serial Communications Boards – RS-422/RS-485

- Configured as COM1, COM2, COM3 or COM4
- RS-422/RS-485 cable length: 1.2km maximum

PCI Bus

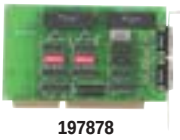
- 16C550 UART
- 460kbps
- 2 ports
- PCI bus 2.1 compliant


197915

Part No.	Product No.	1	10
197915	PCI-COM422/485	$198.95	$178.95
197923	PCI-COM422/485-2	248.95	223.95

ISA Bus

- P/N 197860: RS-422, RS-232 and I-Loop w/ 16450 UART
- 56kbaud
- P/N 197878: Dual RS-422 with 16550 UART


197878

Part No.	Product No	1	10
197860	CIO-COM422	$94.95	$89.95
197878	CIO-Dual422/550	118.95	106.95

PCMCIA/PC-Card Bus

- 16550 UART
- 56kbaud
- 32 network nodes with RS-485


197907

Part No.	Product No.	1	10
197907	PCM-COM422	$148.95	$133.95
198184	PCM-COM485	148.95	133.95

Digital Input/Output Boards – Relay Output/Opto-Isolated Input

- 8 relay outputs: 5 form-C, 3 form-A (28VDC @ 6A, 120VAC @ 5A; contact R = 100mΩ)
- Input range: 5-24VDC or VAC, 50-1000Hz; Rin: 450Ω
- Opto-isolated inputs: 500V isolation channel-to-channel and channel-to-ground
- For terminal board, enclosure and cable, see group number 1 below


197843

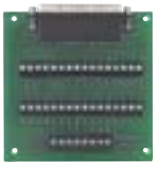
Part No.	Product No.	1	10
197843	PCI-PDIS08 (PCI)	$248.95	$223.95
197819	CIO-PDIS08 (ISA)	198.95	178.95

We'll match the advertised price of any like product.

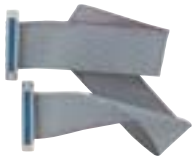
Jameco's Low-Price Guarantee

It's that simple!

Terminal Boards, Enclosures and Cables for the Above Boards

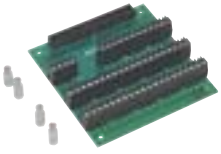

193965


193973
shown with P/N 193965 (not included)


193949


193957


198213


193990

Group Number 1

Part No.	Product No.	Description	1	5
193965	CIO-MINI37	Terminal board	$68.95	$62.10
193973	ENCMINI-37	Enclosure	28.95	26.10
193949	C37FF-2	Cable (ribbon)	24.95	22.50
193957	CF37FFS-5	Cable (shielded)	34.95	31.50

Group Number 2

Part No.	Product No.	Description	1	10
198213	PCM-TERM15	Terminal board/cable	$48.95	$43.95

Group Number 3

Part No.	Product No.	Description	1	5
193990	CIO-MIN150	Terminal board	$68.95	$62.10
194001	ENCMINI-50	Enclosure	28.95	26.10
198192	C50FF-2	Adapter cable	24.95	22.49
198205	CPCC-50M-4	Cable	98.95	84.75

More Data Acquisition Products continued on next page

Part Number Color Code
New Sale Refurbished Closeout

8-Channel A-to-D Module with RS-485 Interface



- 8-differential channels
- 16-bit resolution
- Input range: ±150mV, ±500mV, ±1V, ±5V, ±10V and ±20mA
- Sample rate: 10/sec.
- Common mode rejection @ 50/60Hz: 92dB min.
- Overvoltage protection: ±35V

Requires: 24VDC @ 100mA power supply

Part No.	Description	1	10
198125	8-Ch. voltage & current	$184.95	$166.49

8-Channel Thermocouple Module with RS-485 Interface



- Input type: thermocouple, mV, V, mA
- 8-differential channels
- Accuracy: ±0.05%
- Sampling Rate: 10/sec
- Thermocouple types: J, K, T, E, R, S, B, N, C
- Voltage ranges: ±15mV, ±50mV, ±100mV, ±500mV, ±1V, ±2.5V
- Current range: ±20mA
- Overvoltage protection: ±35V

Requires: 24VDC @ 100mA power supply

Part No.	Description	1	10
198150	8-ch. thermocouple	$188.95	$169.95

2-Channel, 4½-Digit Strain Gauge Module w/ RS-485 Interface

With Digital I/O and Counter



The module is addressable allowing up to 256 units to be linked together via a two wire RS-485 connection with a baud rate of 115.2kbps. Provides 3000V isolation between the module & the network. Includes a dual watchdog timer – one monitors the modules firmware while the other watches the traffic to the host computer.

Analog input:
- 2-channel input
- Input type: mV, V, mA
- Accuracy: ±0.5%
- Sampling rate: 10/sec
- Input impedance: 20MΩ
- Isolation: 3000VDC
- 1 excitation voltage output with range of 0 to +10V

Includes a dual watchdog timer

Digital input/output:
- TTL level
- 1 input and 4 output

Event Counter:
- 50Hz max. frequency
- 1ms min. pulse width

Requires: 24VDC @ 100mA power supply

Part No.	Description	1	10
198117	2-channel strain gauge ...	$294.95	$264.49

Relay Output and Isolated Digital Input Module w/ RS-485 Interface



Digital Input:
- 4-isolated channels with common power
- Isolation voltage: 3750Vrms

Relay Output:
- 4 dry contact relays; two form "A" SPST, two form "C" SPDT
- Switching time: 10ms
- Contact rating: AC – 125V @ 0.6A
- Breakdown voltage: 500VAC

Requires: 24VDC @ 100mA power supply

Part No.	Description	1	10
198133	Relay out/Iso in	$109.95	$98.95

5-Digit Frequency Counter Module with RS-485 Interface



- 2-independent 32-bit counters
- Resolution: 1Hz
- Frequency measurement range: 100kHz
- Input mode: isolated or non-isolated
- Isolation voltage: 3750Vrms
- Programmable built-in gate time: 1.0/0.1sec

Requires: 24VDC @ 100mA power supply

Part No.	Description	1	10
198141	Frequency counter	$184.95	$166.49

Industrial Communications

RS-232 to RS-485/422 Bidirectional Converters



117701

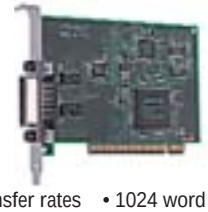
- Cable length: 4000' max.
- Data rate: 1MB/second
- 4-wire full duplex or 2-wire half duplex
- Controlled by RTS signal
- DCE and DTE selectable
- Point-to-point and multidrop operations
- RS-485: terminal block & RJ11 connections
- RS-232: DB25 female connector
- Input: 110VAC; except P/N 129218 220VAC input
- Weight: 0.9 lbs. • One-year warranty

197931: port powered • Data rate: 100kbps
122956: features RS-485SI optical isolation: 2000V
129218: features 220VAC input

Includes: 9VDC @ 300mA power adapter

Part No.	Description	1	10
117701	RS-232-485/422	$57.95	$51.95
197931	RS-232-485/422	59.95	53.95
122956	RS-232-485/422 OPT ISO..	109.95	98.95
129218	RS-232-485/422 (220 VAC)	42.95	36.95

GPIB IEEE-488.2 Boards



PCI Bus
- 1 MB/s transfer rates • 1024 word FIFO buffer

Part No.	Mfr. Cross Ref. No.	1	10
177121	PCI-GPIB-1M	$399.95	$359.95



Opening an account is easy!!

Corporate Customers

Call 1-800-831-4242 for details today

ISA GPIB Interface Card



- On-board firmware ROM callable for user's application program
- Complete Listener/ Talker/Controller (LTC) capability
- ISA Bus
- 6 interrupt levels
- Data transfer rate over 300k bytes/sec.
- RF-shielded IEEE-488 receptable
- Selection of 3 DMA channels using host DMA controller
- Size: 5.0"L x 4.2"W

Part No.	Product No.	Description	1	10
136696	AX5488	GPIB card	$189.95	$169.95

ISA 48-Bit Digital I/O Card



- 48 TTL/DTL I/O lines; 8-bit ports
- Software programmable
- Interrupts: jumper-selectable to IRQ 2, 3, 4, 5, 6 or 7
- Buffer for high sinking capacity
- Added pull-up resistor: CMOS/DRY CONTACT compatible
- ISA bus
- IBM PC/XT and higher compatible
- Size: 10.2"L x 3.9"W
- One-year warranty

Part No.	Description	1	10
136784	48-bit dig. I/O card	$99.95	$89.95

RS-422/RS-485 Optically Isolated Repeater



Optically isolates and protects RS-485 equipment while acting as a signal repeater to increase the number of possible nodes to more than 32. A set of jumpers allows operation in either half-duplex or full-duplex mode for a versatile connection to virtually any RS-422 / RS-485 system.

- Isolation: 2,000 volts RMS for 1 min. optical isolation of data lines and ground
- Surge suppression: 6.5kV, working peak voltage, bidirectional
- Typical applications: RS-485 to RS-485 optical isolator; RS-485 repeater; 4-wire RS-422 to RS-485 2-wire converter; RS-485 surge suppressor • Data rate: up to 460.8kbps

Includes: 12VDC @ 300mA power supply

Part No.	Description	1	10
198061	RS-422/RS-485 Repeater	$138.95	$124.95

onset computer corporation

H8 Data Loggers

Temperature/Relative Humidity/Light Intensity/External Input



194061

- Sensors included (except external sensor input)
- External input accepts external temperature sensors, AC current, 4-20mA and 0-2.5 VDC
- Requires BoxCar software, below right
- Capacity: 7943 measurements total except 194108/194116 are 32,520 measurements total
- User selectable sampling intervals 0.5 sec. to 9 hours, recording time to one year
- Nonvolatile EEPROM memory retains data even if battery fails
- Internal temperature sensor on 4" wire can extend from case
- Programmable start time/date • User replaceable battery lasts one year
- Operating ranges: -4˚F to +158˚F (temperature), 0 to 95% relative humidity (non-condensing, non-fogging), 2 to 6000 foot candles light intensity (lumens/ft²)
- Size: 2.4"L x 1.9"W x 0.8"D; (except P/N 194116: 5.5"L x 5.4"W x 1.4"D)

Part No.	Product No.	Description	1	10
194052	H08-001-02	1 channel temperature	$57.95	$54.95
194061	H08-002-02	2 channel; temp./external input	63.95	59.95
194079	H08-003-02	2 channel; temp./relative humidity	83.95	79.95
194108	H08-006-04	Indoor 4 channel; external input	94.95	85.45
194095	H08-004-02	4 channel; temp./relative humidity/light intensity/external input	93.95	89.95
194087	H08-007-02	2 channel; temp./relative humidity/external input	84.95	75.95
194116	H08-008-04	Outdoor/industrial; 4 channel; external input	178.95	159.95

onset computer corporation

H8 PRO Series Weatherproof Data Loggers

Temperature/External Temperature/ Relative Humidity


194132



- External input accepts external temperature sensors, AC current, 4-20mA and 0-2.5 VDC
- Requires BoxCar software, right
- Weatherproof (RH sensor requires protection from rain or direct splashing)
- High accuracy: ± 0.30F and ±3% RH
- Capacity: 65,291 standard resolution measurements or 32,645 high resolution measurements
- 0 – 100% RH range including condensing environments
- User-selectable resolution on temperature measurements (8 or 12-bit)
- Programmable start time/date
- User-selectable sampling intervals: 0.5 seconds to 9 hours, recording time to three years
- Nonvolatile EEPROM memory retains data even if battery fails • Size: 4.0"L x 3.2"W x 2.0"D

Includes: Sensors

Part No.	Product No.	Description	1	10
194124	H08-030-08	1 channel, temperature	$114.95	$102.95
194132	H08-031-08	2 channel, temp./external temp.	149.95	134.95
194141	H08-032-08	2 channel, temp./relative humidity	131.19	124.65

onset computer corporation

External Sensors & Cables

All cables and sensors can be plugged directly into the external input jacks of the HOBO® H8 Data Loggers (above).



Temperature sensors:
- Range: -40˚F to +212˚F in air
- Accuracy: ±0.9˚F @ 70˚F
- Resolution: 0.7˚F @ 70˚F
- Response time in still air: 4.5 min. typical

Part No.	Product No.	Description	1	10
194175	TMC1-HA	1' temp. sensor	$22.95	$21.85
194183	TMC6-HA	6' temp. sensor	24.95	23.75
194191	TMC20-HA	20' temp. sensor	25.95	23.39
194204	TMC50-HA	50' temp. sensor	28.99	27.55
194221	TMC6-HC	6' temp. sensor, stainless steel probe	62.99	56.99
194239	CABLE-4-20mA	18" cable, 3.5" tinned braided wire leads	11.49	10.29
194247	CABLE2.5-Stereo	6' voltage input cable, 0.5" tinned braided wire leads	5.29	4.79

See the yellow highlighted items.

Special Jameco Values!

Details on page 5

What is An H8 Data Logger?

An H8 data logger is a small battery-operated electronic instrument that measures and records physical parameters over time such as temperature, humidity, light intensity and any physical value represented by a DC voltage. They are equipped with a microprocessor, data storage, and sensor. Some models allow the use of external sensors.

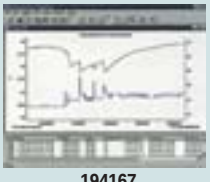
The data logger is connected to a personal computer (cable supplied) and the turn-key BoxCar software is used to select logging parameters such as sampling intervals and sampling period. Start time is also programmed and determines when the logging is initiated. The data logger is then disconnected from the PC and deployed in the desired location to begin taking measurements.

Used mainly in remote areas or anywhere the convenience of battery power is wanted. They are ideal for those involved with field studies, transportation monitoring, HVAC, troubleshooting, quality studies, general research, and educational science.

Examples of typical applications are: deployed in Alaskan glaciers in the hopes of finding answers to the global warming concerns; used by Cascade Designs, makers of Therma-Rest® sleeping bags, to determine thermal comfort ratings of their outdoor products; the state of Kansas used the data loggers for fuel savings evaluations in residential homes; helps to improve the performance of radio controlled race cars; and manage many aspects of a Laundromat business.

BoxCar Software for Windows®

For Hobo® Data Loggers


194167

onset computer corporation

Two Windows® applications for logger and data management: BoxCar 3.6 provides basic launch, data readout, plotting and data export capabilities. BoxCar Pro 4.0 is a powerful enhanced version of BoxCar 3.6, offering added features for graphing, data analysis, data export and simultaneous management of multiple loggers.

Easy Logger Set-up:
- Select from predefined sampling intervals (0.5 seconds to 9 hours) or program your own custom intervals
- Set start time and memory modes (stop when full, wrap-around when full)
- Check battery status
- Export data to Microsoft Excel, Lotus 1-2-3, or any ASCII compatible programs

BoxCar 3.7:
- Tool bar provides easy access to commonly used functions
- View data in tabular and graphical formats
- Display multiple plot windows at once

BoxCar PRO 4.0:
- Powerful graphing capabilities allows user to compare multiple parameters on one graph. Use the zoom and axis-control tools to focus in on the data of interest
- Analysis functions can be used to extract key information from logged data
- Other features include long file names, print preview, print graphs and series details, and multiple logger launch

Part No.	Product No.	Description	1	10
194159	BC3.7-ON	BoxCar 3.7	$13.95	$13.30
194167	BCP4.0-ON	BoxCar PRO 4.0	94.95	89.95

Part Number Color Code: New Sale Refurbished Closeout

ATEN 5-Port USB 2.0 PCI Card

40 Times Faster Than the Original USB!



USB 2.0 will offer enhanced functionality, allowing more devices to share the increased bandwidth.

- Supports high speed data transfer rate of up to 480 Mbps
- Full backwards compatible with USB 1.1
- Supports Windows® 98SE/2000/ME/XP
- Hot swappable Plug & Play
- 1 internal USB-A port
- 4 external USB-A ports
- PC Power Management v2.2 compliant

Part No.	Description	1	10
197940	5-port USB 2.0 PCI card ..	$59.95	$53.95

2-Port USB-A PCI Card



- Plug & Play compatible
- Uses VIA VT83C572 controller chip
- USB specification V.1.1 compatible
- USB legacy BIOS supports
- Operates in USB-aware operating system (Win® 95, 98)
- Size: 4.7"L x 2.0"W • One-year warranty

Includes: Manual

Part No.	Description	1	10	25
155299	PCI USB	$29.95	$26.95	$23.95

4-Port USB-A PCI Card

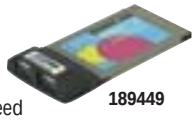


- OPTi 82C862 chipset
- Full compliance with USB Spec Rev 1.1
- PCI specification V.2.1 compliant
- Plug & Play compatibility with external devices
- Auto detects speed and connection of devices
- Tiered star topology supporting up to 5 tiers and 127 devices • Size: 4.9"L x 3.7"H

System requirements: IBM or compatible with 586 or higher processor; 64MB of memory; available PCI slot; Windows® 98 or higher

Part No.	Description	1	10	25
189042	PCI USB	$39.95	$35.85	$32.25

2-Port USB-A PCMCIA Cards



- PCMCIA type-II card
- New 32-bit CardBus
- Size: 4.6"L x 2.1"W

208047: USB 2.0 EHCI USB standard; 480Mbps max. speed

189499: USB 1.1 OHCI USB standard; 12Mbps max. speed

System requirements: Windows® 98, ME, 2000 and Mac OS 8.6 or later

Includes: Manual

NEW

Part No.	Description	1	10
208047	USB 2.0 PCMCIA card	$89.95	$79.95
189499	USB 1.0 PCMCIA card	89.95	80.95

External 3-Port USB Hub

With Serial and Parallel Port Converter



- Supports throughput up to 12Mbps
- Connectors: USB-B F input; 3 USB-A F output; DB25 F output; DB9 M output
- LED indicator for link status
- Size: 5.4"L x 3.0"W x 0.9"H • Weight: 2.1 lbs.

System requirements: Windows® 95 OSR 2.1 or Windows® 98 and PC with USB port

Includes: Manual, 5VDC @ 2A power supply and USB-A male to USB-B male cable

Part No.	Description	1	10
172785	3-port USB hub	$54.75	$51.98

External 4-Port USB Hub

USB-A Female Plug & Play! Daisy Chainable!



- One USB-B female upstream port, 4 USB-A downstream ports
- Support low-speed and high speed data transfer
- Auto selected self-powered modes
- Overcurrent protection and detection per port
- Hot swappable • One-year warranty
- Size: 5.1"L x 2.8"W x 1.0"H • Weight: 1.8 lbs.

155678: Supports OHCI and UHCI

System requirements: Windows® 95 OSR 2.1 or Windows® 98; PC with USB port

Part No.	Description	1	10
155678	4-port USB hub	$32.95	$29.95
204628	4-port USb hub	29.95	26.95

Combo IEEE 1394 and USB 2.0 PCI Card



Create your own videos with this combo PCI card that's 40-times faster than the original USB.

- Fully IEEE 1394 (firewire) OHCI compliance
- 133Mbps PCI bus master DMA transfer rate
- 400Mbps transfer rate on IEEE 1394 and 480Mbps transfer rate on USB 2.0
- Supports USB 1.0 and OHCI specifications
- 2 external and 1 internal IEEE 1394 connector
- 3 external and 1 internal USB connector
- Supports Windows® 98/ME/XP/2000 and MAC OS
- Board size: 4.8"L x 3.5"W

NEW

Includes: ULEAD VideoStudio software on CD-ROM, drivers and utilities on CD-ROM, internal power cable, IEEE 1394 cable, internal power cable, and manual

Part No.	Description	1	10
208477	PCI USB	$99.95	$94.95

Firewire PCMCIA Card



Designed to connect Firewire devices to any notebook computer. With its two external ports, you can have 63 devices on the same port with a maximum speed of 400Mbps.

- Fully IEEE 1394 OHCI compliance
- 133MB/s cardbus master DMA transfer rate
- 32-bit bus • Open architecture API
- Real time transmission data
- Peer to peer communication structure
- Backward compatible speeds
- Increases efficiency of data transactions while simplifying software driver designs
- Supports Microsoft Windows® 98SE/ME/XP/200, and Apple® MAC OS 8.6 or above
- Size: 4.7"L x 2.1"W

NEW

Includes: 4'10" Firewire cable, manual, and ULEAD VideoStudio Software

Part No.	Description	1	10
208039	PCMCIA firewire card	$89.95	$79.95

External 3-Port USB Thumbhub

Expand your single USB port to a stacked 3-port thumbhub.



- USB Revision 1.1 compliant
- Downstream port with OCD (over current detection) and OCP (overcurrent protection)
- LED indicators uplink/down port communication, and OCP status
- Supports full speed (12Mbps) and low speed (1.5Mbps) transfer rate • Self-powered mode
- Compatible with Windows® 98/98SE/2000/ME/MAC OS8.5
- Size: 3.1"L x 0.8"W x 1.2"H

NEW

Part No.	Description	1	10
208451	3-port thumbhub	$18.95	$16.95

External USB 2.0 4-Port Hub



This hub allows you to connect and add any USB 2.0 peripherals to your PC. USB 1.1 backward compatible allowing all previous devices that you may have function as usual.

NEW

- Supports 1.5Mbps low speed, 12Mbps full speed, and 480Mbps high speed data transfer rate
- One USB-B female upstream port and 4 USB-A female downstream port
- Connects up to 127 devices through cascading multiple hubs • Supports self-powered mode
- Size: 4.0"L x 2.4"W x 1.0"H • Weight: 1.3 lbs.

System requirements: Pentium® 233Mhz or higher and MAC PCs, 64MB of RAM, available USB port, Windows® 98SE/ME/2000/XP/Mac OS

Includes: 5VDC@4A power supply, USB-A male to USB-B male cable, and manual

Part No.	Description	1	10
209007	4-port hub	$59.95	$53.95

External 7-Port USB Hub



- 7 USB-A female output ports
- USB-B female root port
- Plug & Play compatible
- Allows you to attach 127 USB devices to your PC
- LED indicators for port, status, and power
- Size: 7.9"L x 2.8"W x 1.1"H • Weight: 2.6 lbs.

Includes: 6VDC power adapter and USB-A male to USB-B female cable

Part No.	Description	1	10
191450	7-Port USB hub	$44.95	$39.95

USB Docking Station



Perfect for notebook users and managing multiple peripherals. Connect one cable to your computer to manage multiple peripherals.

- Input connector: USB-B male
- Output connectors: 2 USB-A female; 2 PS/2 female (keyboard and mouse); RJ45 jack, DB9 male; and DB25 female ports
- LED indicators for power and USB status
- Size: 4.5"L x 2.9"W x 1.0"H • Weight: 2.1 lbs.

Includes: 5VDC @ 2.1A wall transformer, USB-A male to USB-B male cable, and CD-ROM drivers

Part No.	Description	1	10
190553	USB docking station	$87.95	$78.95

USB-A Female Cables & Bracket



- Supports data transfer rates of 12Mbps
- Allows connection of two devices
- Dual USB-A female connectors • 8" long

Part No.	Description	1	10	25
144813	USB-A panel mount	$6.95	$6.25	$5.59

ATEN USB-to-Centronics Printer Cable

USB-A Connector



- Full compliance with the USB spec V.1.0
- USB-A male to 36-pin male centronics connector
- Supports true bidirectional communication
- Applicable to standard and bidirectional printers

Part No.	Description	1	10	25
155352	6' USB cable	$29.95	$26.95	$23.95

USB Cable Extenders



- Extends the distance between USB devices by up to 16'
- Complies with USB electrical and timing specifications
- Compatible with high and low speed USB devices
- Interface: USB-A male to USB-A female
- Size: (adapter): 2.8"L x 1.5"W x 0.6"H
- Weight: 1.0 lb.

191441

SALE

Includes: USB-A male to USB-B female cable

Part No.	Description	1	10	25
191433	8' USB extender	$24.95	$18.69	$12.95
191441	16' USB extender	29.50	22.95	16.03

USB-A & B Connectors and Pins



159716 USB-A



161023 USB-A

159716/174060: USB A & B Male Connectors

- 3-part housing: tin plate over brass and glass fiber
- 4-pins (P/N 159724) required per USB connector



174060 USB-B

161023/174051: USB A & B Female Connectors

- PC mount right angle with board locks

159724: Male Crimp Pin

- Pin for P/N 159716 (4 required)
- Contact brass
- Use P/N 159265 for crimping tool, pg 121



174051 USB-B



159724

✳**Prepackaged: order in increments of 10, 100 or 1000**

Part No.	Description	1	10	100	1000
159716	USB-A connector (M)	$.79	$.71	$.61	$.44
161023	USB-A connector (F)	.79	.71	.61	.44
174060	USB-B connector (M)	.59	.53	.48	.43
174051	USB-B connector (F)	.79	.69	.49	.36
159724	Crimp pin for 159716 .. ✳	.125	.075	.05	

USB Thumbdrives



What better way to keep your data safe than to keep it close to you? Thumbdrives are compact and fit easily in your pocket or hang it around your neck. Portable and lightweight, no external power needed. No drivers necessary for Windows® ME & above.

- 10 year data retention
- Size: 3.0"L x 1.0"W x 0.4"H

NEW

Includes: Windows 98/98SE driver diskette, USB-A male to female cable, and neck strap

Part No.	Description	1	10
208522	16MB	$34.95	$33.20
208531	32MB	49.95	47.45
208549	64MB	69.95	66.45
208557	128MB	99.95	94.95
208565	512MB	399.95	379.95

USB-A IrDA Transceiver



Convert your computer's unused USB-A port to an infrared communications port.

- Data transmission rate: 4Mbps/sec.
- Meets IrDA V1.0 and V1.1 specifications
- Input connector: USB-A male connector
- Size (including base): 3.2"L x 2.3"W x 1.8"H

System requirements: Windows® 98/2000/ME; USB-A port

Includes: Installation manual and 3.5" disk drivers

Part No.	Description	1	10
190941	USB to IrDA transceiver	$54.95	$49.49

USB-A to Joystick (DB15) Adapter



SALE

- Fully compatible with any 15-pin game port PC game controller
- Mode switch selector for maximum compatibility and flexibility
- USB Plug & Play
- Input connector: USB-A male
- Output connector: DB15-pin female connector
- Size: 3.2"L x 2.3"W x 1.3"H

System requirements: 586 or higher compatible; available USB-A port or Hub; Windows® 98 or higher

Includes: Manual and 3.5" drivers

Part No.	Description	1	10
189510	USB to game port adapter	$39.95	$28.95

USB Gender Adapters

USB-A to USB-B



169375

169383: USB-A (male) to USB-B (female)
169375: USB-A (female) to USB-B (male)

Part No.	Description	1	10	25
169383	1.3"L x 0.4"W	$6.95	$6.35	$5.59
169375	1.7"L x 0.6"W	6.95	6.35	5.59

Bulk USB Cable

SALE

- 150 volt rating
- Temperature rating: 80˚C
- Red and black wire: 24 AWG stranded (7/32)
- Green and white wire: 28 AWG stranded (7/36)
- **Prepackaged: order in increments of 25', 100' or 1000'**

Part No.	Description	25 ft.	100 ft.	1000 ft.
173139	USB cable	$3.00	$11.00	$100.00

USB Cables



175417 175425 199793

USB-A Male to USB-B Male

Part No.	Description	1	10	25
175417	3' cable	$4.49	$3.99	$3.59
169359	6' cable	4.95	4.49	3.95
169367	10' cable	5.95	5.25	4.59

USB-A Male to USB-A Male

Part No.	Description	1	10	25
196904	2' cable	$3.49	$2.95	$2.65
175425	3' cable	3.95	3.49	2.95
175433	6' cable	4.95	4.49	3.95
175441	10' cable	5.95	5.25	4.59

USB-A Male to USB-A Female Extension

Part No.	Description	1	10	25
199793	6' cable	$4.95	$4.49	$3.95
199806	10' cable	5.95	5.25	4.59

USB-to-RS-232 Serial Converter



- Real Plug & Play and Hot-Plugged device
- 1 upstream port with USB-B female connector
- 1 downstream port with DB25 female connector
- Compliant with USB specification Rev. 1.1
- No power consumption
- Automatic USB protocol handling
- Size: 3.0"L x 2.2"W x 0.8"H • Weight: 0.6 lbs.

System requirements: IBM compatible PC with Pentium® processor and USB connectivity, Windows® 98/OSR 2.1 & 16MB of RAM

Includes: 6' USB-A male to USB-B female cable and 3.5" driver diskette

Part No.	Description	1	10
164048	USB-B to serial converter	$49.95	$44.95

IEEE-1394 Firewire Cables



175821 175839 175847

SALE

Connect your computer to the latest high speed Firewire peripherals.

- IEEE-1394 compliant • UL approved
- Molded connectors • Length: 6'

Part No.	Description	1	10	25
175821	4-pin M – M	$15.95	$14.49	$12.95
175839	6-pin M – 4-pin M	11.95	10.74	9.49
175847	6-pin M – M	9.95	8.94	8.04

SHAXON Black Velcro Cable Tie



SALE

- Has buckle and mounting hole

Part No.	Product No.	Length	1	10	50
149139	MD889BK	9"	$.99	$.89	$.79

30-Day Money-Back Guarantee

If you're not satisfied we'll take it back!
Details on page 181

Part Number Color Code: New Sale Refurbished Closeout

RGB Video Cables



73648

- 75Ω coaxial cable; 6' or 10'
- Pin 1 red, pin 2 green, pin 3 blue, pin 14 white/black vertical, pin 13 gray horizontal
- 5 BNCs to HDDB15-pin male
- Weight: 0.9 lbs.

Part No.	Description	1	10	25
73648	6' cable (black)	$19.95	$17.95	$16.15
118068	10' cable (black)	31.95	28.95	21.95

RCA Cables



139037 177527 190617

- Video/audio applications
- See page 126 for jacks
- Color: black except as shown
- ***184882:** Low loss

Part No.	Description	1	10	100
196808	5" Y: 1/8" F to 2 RCA M	$1.95	$1.49	$.99
183302	4' 2 males (red/black)	2.95	2.65	2.35
139037	5" Y: 1/8" M to 2 RCA M	2.95	2.12	1.56
177527	6' 3 males to 3 males	4.95	4.49	3.95
184882	6' 3 males to 3 males	3.95	2.95	2.09
183311	4' male to male	.99	.89	.79
206973	4' male to male (yellow)	.99	.89	.79
106374	6' male to male	1.25	.99	.79
190617	10' male to male	1.49	1.15	.99
29348	10' male to male (yellow)	1.69	1.49	1.25

VGA Monitor Cables


66173

- Connects video card to VGA monitor
- IBM PC/XT and higher compatibles
- HDDB15 male to male

Part No.	Description	1	10	100
66173	6' monitor cable	$6.49	$5.89	$5.29
148523	10' monitor cable	6.95	6.25	5.59

9-Pin Monitor Cable


66157

- For monochrome, RGB, EGA and multisync monitors
- Connects video card to monitor
- IBM PC/XT and higher compatibles

Part No.	Description	1	10	100
66157	6' DB9 M-M	$4.45	$3.95	$3.55

VGA Monitor Extension Cables


134041 66165

- Extends VGA monitor cable; HDDB15 male-to-female
- IBM PC/XT and higher compatibles

134041: • HDDB15 female with hex nuts and HDDB15 male with thumbscrews

66165/148531: • Thumbscrews on each end

Part No.	Description	1	10	100
134041	6' screws/hex nuts	$4.49	$3.95	$3.49
66165	6' thumbscrews	5.49	4.99	4.49
148531	10' thumbscrews	7.49	6.79	5.99

37-Pin Straight Through Cable Adapters



180611 181294

- Molded connectors
- Color: gray
- Length: 6'
- Weight: 0.9 lbs.

Part No.	Description	1	10	100
180611	DC37 M-M	$5.95	$5.35	$4.79
181294	DC37 M-F	5.95	5.49	4.95

DA15 Extension Cables

DA15 connectors


181286

- Molded connectors
- Straight through
- Thumbscrews
- Color: gray

Part No.	Description	Length	1	10	100
181286	DA15 M-M	6'	$4.95	$4.49	$3.95
181358	DA15 M-F	6'	4.95	4.49	3.95

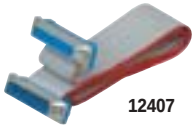
DB25 Serial Modem Cable



- Molded and fully shielded DB25 M-F
- 9 pins wired straight through: pins 1-8 and 20 (metal shell)

Part No.	Description	1	10	100
53858	6' M-F	$4.95	$3.69	$2.59

Ribbon Cable Assemblies



12407

- Metal connector
- 300V rating
- 105°C rating
- 28 AWG flat cable
- Tin-plated contacts

Part No.	Description	1	10	100
12407	4' DB25 M-F	$4.49	$3.95	$3.59
208581	6' DB9 M-F	3.95	3.55	3.19
208590	6' DB25 M-M	4.95	4.45	3.95
208602	6' DB25 F-F	4.95	4.45	3.95

DB25-to-Centronics Parallel Printer Cables



28716 164777

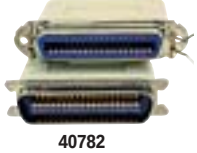
- Molded and fully shielded DB25 male and 36-pin Centronics male connectors
- IBM PC/XT and higher compatibles

***164777:** Centronics rt. angle

Part No.	Description	Wt. (lbs.)	1	10	100
28716	6' straight	0.4	$4.35	$3.89	$3.49
58536	8' straight	0.9	2.79	2.49	2.19
123781	10' straight	0.6	4.95	3.79	2.59
164777	10' right angle*	0.7	4.95	3.69	2.59
28708	15' straight	0.8	5.95	4.49	3.19
101899	25' straight	1.1	5.95	4.49	3.19
184786	50' straight	2.1	8.95	6.75	4.69

36-Pin Centronics Printer Extension Cables

25 or 36 Conductors

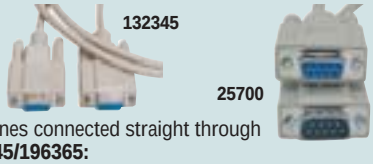

40782

- Molded and fully shielded Centronics 36-pin male and female connectors
- Use to lengthen standard printer cables or for switch box applications
- Weight: 1.0 lb.

***135028:** metal hood, black

Part No.	Description	# of Conductors	1	10	100
40791	10' M-M	25	$.99	$.75	$.59
183396	15' M-M	25	1.09	.99	.89
180515	6' M-F	25	.79	.72	.65
135028	8' M-M metal*	36	1.89	1.69	1.52
180443	6' M-F	36	.89	.80	.72
40782	10' M-F	36	1.69	1.49	1.29

DB9 Extension Cables



- All lines connected straight through

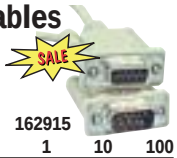
132345/196365:
- DB9 female to DB9 female cable with thumbscrews

25700/148515/199638:
- DB9 male to DB9 female cable with thumbscrews

181665: • DB9 male to DB9 male cable

Part No.	Description	1	10	100	1000
132345	6' F-F	$4.95	$4.49	$3.95	$3.49
199638	6' M-F (black)	4.49	3.59	2.69	1.89
25700	6' M-F	6.49	5.79	5.19	4.69
196365	10' F-F	6.95	6.25	5.59	4.95
148515	10' M-F	7.49	6.79	5.99	4.95
181665	10' M-M	6.95	6.25	5.59	4.95

9-Pin Test Cables



162915

154798: DB9 M to DB25 M (2')
- Pin outs: 2-2, 3-3, 5-7, 7-5, 8-4

162915: DB9 M to DB9 F (6')
- Pin outs: 1-3, 2-2, 4-5

Part No.	Description	1	10	100
154798	DB9 male to DB25 male	$1.09	$.99	$.89
162915	DB9 male to DB9 female	3.49	2.59	1.79

DB9-to-DB25 AT-Adapter Serial Cables


31721

- For DB9 serial ports which need to be converted to DB25 serial
- AT and compatibles
- Molded DB9 female to DB25 male connectors

Part No.	Description	1	10	100
109583	1' serial, beige	$4.35	$3.95	$3.49
189333	3' serial, beige	3.95	2.95	2.09
31721	6' serial, beige	4.95	4.49	3.75
191361	6' serial, gray	4.95	3.75	2.65
155521	10' serial, beige	4.49	3.49	2.49
207790	4' serial, beige	4.49	3.95	3.59

DB25 Extension Cables



67256

- All lines connected straight through
- Use to lengthen your standard serial cable or for switch box applications
- Thumbscrews to secure connectors
- Color: gray; except P/Ns **174001/180451/175290:** black*

Part No.	Description	Wt. (lbs.)	1	10	50	100
203060	8' M-M	0.3	$1.95	$1.75	$1.55	$1.39
174001	3' M-M*	0.6	3.95	3.55	2.95	2.35
65787	6' M-M	0.5	6.49	5.89	5.29	4.89
39538	10' M-M	0.7	6.95	5.59	4.19	2.95
180451	10' M-M*	1.1	5.25	4.28	3.19	2.25
179979	15' M-M	1.2	6.95	5.49	4.14	2.90
67070	25' M-M	1.4	10.95	9.95	8.95	7.95
180435	50' M-M	3.6	14.95	13.49	11.95	9.95
175329	1' M-F	0.3	2.95	2.59	2.19	1.95
164291	3' M-F	0.4	3.49	2.79	2.09	1.49
175290	3' M-F*	0.4	2.95	2.39	1.79	1.25
163133	5' M-F	0.6	3.95	3.55	3.19	2.89
67256	6' M-F	0.6	6.45	5.79	5.25	4.69
39511	10' M-F	0.7	6.95	5.59	4.19	2.95
177279	15' M-F	1.0	7.95	6.39	4.79	3.39
101995	25' M-F	1.4	10.95	9.95	8.95	7.95
181201	50' M-F	3.2	16.49	14.89	13.39	11.99
180478	6' F-F	0.7	4.95	3.95	2.95	2.09
181331	10' F-F	0.9	5.95	4.79	3.59	2.51

IEEE 1284 Parallel & Serial Cables for High Speed

SALE



130067

The IEEE 1284 is the standard in high speed printing. Compatible w/ bidirectional communication data flow resulting in speeds up to 10 times faster than conventional applications.

- Double shielded with 28 AWG stranded twisted pair inner conductors • Molded shells, PVC plastic
- Color: beige (P/N 130067/168233); black (P/N 161630); gray (P/N 172304) • Weight: 0.6 lbs.

Part No.	Description	1	10
130067	6' DB25 M-Cent. parallel 36M	$11.95	$10.95
172304	6' DB25 M-micro Cent. 36M	3.49	3.15
168233	6' DB25 M-F parallel cable	6.95	5.95
161630	10' DB25 M-M serial cable	14.95	13.49

IEEE 1394 Firewire Cables



175821 175839 175847

Connect your computer to the latest high speed Firewire peripherals.

- IEEE 1394 compliant • UL approved
- Molded connectors • Length: 6'

Part No.	Description	1	10	25
175821	4-pin M – M	$15.95	$14.49	$12.95
175839	6-pin M – 4-pin M	11.95	10.74	9.49
175847	6-pin M – M	9.95	8.94	8.04

IEEE 488 Cables



73154

A variety of cable lengths are offered to ensure that the IEEE system requirements are met (20 meters maximum length with a maximum of 15 devices). These cables are standard IEEE 488 cables with stackable 24-pin GPIB connectors on both ends.

- Color: gray

Part No.	Description	Wt. (lbs.)	1	10	25
73154	1 meter	0.8 ...	$36.49	$32.79	$29.49
115781	2 meter	1.2	37.95	34.19	30.95
115801	4 meter	2.0	34.95	26.25	18.39

Fiber Optic Duplex Cable Assemblies



Fig. 1



Fig. 2

- Multimode • 62.5 / 125 micron fiber size
- Cable color: orange
- For more Fiber Optic products see pg 128

SALE

Insertion Loss (dB) Table:

Part No.	A1	A2	B1	B2
175345	0.13	0.11	0.07	0.04
175353	0.21	0.10	0.23	0.07
175361	0.08	0.08	0.12	0.12

Part No.	Desc.	Fig.	Length	1	10	100
175345	ST-ST	1	2M (6'6")	$22.95	$19.95	$17.95
175353	ST-SC	2	1M (3'3")	22.99	20.69	18.65
175361	ST-SC	2	2M (6'6")	26.95	24.25	21.79

PC/XT/AT and PS/2 Keyboard Extension Cables

- Color: beige

22234/114981/112045/169826:

- IBM PC/XT and higher compatibles
- 5-pin DIN male-to-female

28548/111053:

- PS/2 computers
- 6-pin mini DIN female-to-male

SALE



114981

Part No.	Description	1	10	100
22234	PC/XT/AT 5' coiled	$1.69	$1.49	$1.39
114981	PC/XT/AT 6' non-coiled	3.85	3.45	3.09
169826	PC/XT/AT 10' coiled	1.39	1.25	1.15
112045	PC/XT/AT 10' non-coiled	3.95	2.95	2.09
28548	PS/2 6' non-coiled	4.35	3.89	3.49
111053	PS/2 10' non-coiled	5.49	4.99	4.39

SCSI Adapters and Terminator

SALE



133920 167370 129971

- See below for SCSI-type connector guide

Part No.	Description	1	10	50
133920	50-pin ribbon header SCSI-I to DB25 female	$8.95	$7.95	$7.25
125241	50-pin ribbon header to HPDB50 SCSI-II female	9.95	8.95	7.95
145293	DB25 male to HPDB50 female SCSI-II	15.95	14.35	12.95
167370	DB25 female to HPDB50 male SCSI-II	9.95	7.49	5.25
129971	Cent. 50 SCSI-I term.	.25	.22	.21

AT-to-PS/2 and PS/2-to-AT Keyboard Adapter Cables

28003:

- Connects AT-type keyboards to PS/2
- 5-pin female DIN to 6-pin male mini DIN

85500:

- Connects PS/2keyboard to AT
- 6-pin female mini DIN to 5-pin male DIN connectors



28003

Part No.	Length	Color	Wt. (lbs.)	1	10	100
28003	7.3"	Beige	0.6	$3.95	$3.49	$3.15
85500	11.3"	Beige	0.8 ...	4.95	4.25	3.49

ATEN

Monitor/Mouse/ Keyboard Cables

- 6' or 32'
- HDDB15 male/female for monitor, 5-pin DIN male/male for keyboard, and DB9 male/female for mouse



141284

Part No.	Description	Wt. (lbs.)	1	10
141284	6' cable	1.6	$22.95	$19.95
141276	32' cable	4.8	39.95	35.95

Firewire PCMCIA Card



Designed to connect Firewire devices to any notebook computer. With its two external ports, you can have 63 devices on the same port with a maximum speed of 400Mbps.

- Fully IEEE 1394 OHCI compliance
- 133MB/s cardbus master DMA transfer rate
- 32-bit bus
- Open architecture API
- Real time transmission data
- Peer to peer communication structure
- Backward compatible speeds
- Increases efficiency of data transactions while simplifying softwaredriver designs
- Supports Microsoft Windows® 98SE/ME/XP/200, and Apple® MAC OS 8.6 or above
- Size: 4.7"L x 2.1"W

NEW

Includes: 4'10" Firewire cable, manual, and ULEAD VideoStudio Software

Part No.	Description	1	10
208039	PCMCIA firewire card	$89.95	$79.95

Retractable Cables

NEW



208362

These auto-reel retractable cables are compact and convenient solutions for loose and tangled cable.

208362: RJ11 type

- For telephone and modem applications
- Cord length: 9'6"
- Includes: Inline coupler

208371: RJ45 type, Cat 5

- For telephone, modem and networking applications
- Cord length: 23'

Includes: RJ45 right angle adapter and RJ45 to telephone outlet adapter

Part No.	Description	1	10
208362	RJ11 cable	$9.95	$8.95
208371	RJ45 cable, Cat 5	19.95	17.95

ATEN

IDE Hard Drive to Parallel Port Adapter

SALE



- Allows connecting hard drive to a parallel port
- Use with IDE drives up to 8.46GB
- Compatible with DOS and Windows®
- Enters power save mode after 20 minutes idle time
- Size: 8.8"L x 5.3"W x 1.5"H • Weight: 4.5 lbs.

Includes: 120VAC external power adapter, cable, manual and carrying case

Part No.	Description	1	10
129699	3.5" ext. HD enclosure	$76.95	$69.75

SCSI Type / Connector Reference Table

SCSI type	DB25	50-pin Centronics	50-pin Header	Half pitch DB50	Half pitch DB68	VHD68 Centronics	VHD80 Centronics
SCSI-I	✔	✔	✔				
SCSI-II			✔	✔			
SCSI-II wide					✔		
SCSI-III					✔	✔	
RAID: SCA, SCA-2							✔

Part Number Color Code Legend: New | Sale | Refurbished | Closeout

Part Number Color Code: New Sale Refurbished Closeout

Save Space! Slim-Line D-Sub Gender Changers


18497


56071


18446

These revolutionary slim-line gender changers are only 0.69" wide, eliminating the space problems caused by standard gender changers. When plugged into your existing cable, they add only 0.44" to the cable. All-metal cases.

- Captive locking screw (male)
- Captive locking nut (female)
- Grounding tangs (male)

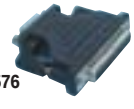
Part No.	Description	1	10	100
18497	D-sub 9-pin male	$4.95	$4.49	$3.99
18489	D-sub 9-pin female	4.95	4.49	3.99
56071	D-sub 15-pin male	3.95	3.49	2.95
56063	D-sub 15-pin female	3.49	2.99	2.39
119319	D-sub 15-pin female HD	4.95	4.49	3.95
119301	D-sub 15-pin male HD	3.95	3.49	2.95
18446	D-sub 25-pin male	4.95	4.49	3.99
18420	D-sub 25-pin female	4.95	4.49	3.99
170085	D-sub 25-pin M-F	2.95	2.25	1.59

D-Sub 9-Pin to 25-Pin Serial Adapters

SALE


10305

10305: For use in AT or other computer systems that have 9-pin D-sub serial ports.
153576/10321/163740: For PC/XT systems with DB25 serial ports.
* **154683:** 4-40 x .24" hex nut (4)
** **189632:** thumbscrews
† **139985:** gold-plated contacts, extra long thumbscrews


153576

Part No.	Description	1	10	100
10305	DB9 F to DB25 M	$3.49	$2.59	$1.85
163740	DB9 M to DB25 F, thumbscrews on DB9 side only	1.85	1.45	.99
153576	DB9 M to DB25 F, thumbscrews on DB25 side only	2.95	2.25	1.59
10321	DB9 M to DB25 F	4.49	3.79	3.19
154683*	DB9 F to DB25 F	2.49	2.25	1.55
189632**	DB9 M to DB25 M	2.95	2.65	2.39
139985†	DB9 F to DB25 F	3.95	3.55	3.19

6-Pin Male Mini DIN to 9-Pin Male D-Sub Adapters


152901


100335

SALE


180523

Pin-to-pin connections:

6-pin male mini DIN	1	2	3	4	5	6
9-pin male D-sub						
152901	9	—	3, 5	4, 6	8	—
100335	1	—	3, 9	2, 5, 7	6	—
180523	2	3	5	4, 7	5	—

- Color: beige
- Size: 1.6"L x 1.3"W

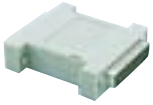
Part No.	Description	1	10	100
152901	W/ threaded spacer	$3.49	$2.59	$1.85
100335	W/ thumbscrew	3.45	3.09	2.79
180523	Cable adapter (1 ft.)	1.95	1.79	1.59

Standard D-Sub Gender Changers


16643

SALE


181139


22058

- Standard 9- and 25-pin D-sub male and female gender changers for interfacing two cables or connectors of the same gender

Part No.	Description	1	10	100
16635	D-sub 9-pin male	$1.95	$1.75	$1.49
16643	D-sub 9-pin female	1.95	1.75	1.49
181139	D-sub 15-pin female HD	.99	.89	.79
22058	D-sub 25-pin male	1.95	1.75	1.49
22074	D-sub 25-pin female	1.75	1.49	1.29

AT and PS/2 Keyboard Adapters


159089


159097


157930

159089/189771: AT keyboard adapter
- Connects PS/2 keyboard to AT
- 6-pin female mini DIN to 5-pin male DIN


189771

159097/157930: PS/2 keyboard adapter
- Connects AT type keyboards to the PS/2
- 5-pin female DIN to 6-pin male mini DIN (PS/2)

Part No.	Length	Housing	1	10	100
159089	1.6"	Metal	$2.95	$2.65	$2.39
159097	1.4"	Metal	2.95	2.65	2.39
157930	1.7"	Plastic/metal	2.95	2.65	2.39
189771	1.7"	Plastic	2.95	2.65	2.39

15-Pin to 9-Pin VGA Adapter



- Adapts 15-pin VGA to 9-pin output
- Male HDDB15 to female DB9 adapter

Part No.	Description	1	10	100
75264	VGA adapter	$4.45	$3.95	$3.55

Laptop Computer Power Cord



- 2-conductor power cord for laptop computers
- 18/2 AWG • 6' cord • Black
- Flat junior duty type cord

Part No.	Description	1	10
189587	6' laptop power cord	$2.95	$2.49

Switch Box Adapter Cables


174772

177261: • 2' gray 6-pin mini DIN M-M non-coiled cable for P/N 79177 switch box, pg 149
114913: • 5' gray 5-pin DIN M-M coiled cable for P/Ns 114163/114155 switch boxes, pg 149
174772: • 6' black 6-pin mini DIN M-M
174908: • 6' gray 6-pin mini DIN M-M
112627: • 10' gray 6-pin mini DIN M-M non-coiled cable for P/N 79177 switch box, pg 149

Switch Boxes See pages 148-149

Part No.	Description	Length	1	10	50
177261	6-pin mini DIN	2' (gray)	$2.95	$2.25	$1.59
114913	5-pin DIN	5' (gray)	4.95	4.49	3.95
174772	6-pin mini DIN	6' (blk)	4.95	3.69	2.59
174908	6-pin mini DIN	6' (gray)	5.75	5.15	4.65
112627	6-pin mini DIN	10' (beige)	7.95	7.25	6.49
205655	6-pin mini DIN	25' (beige)	8.95	7.95	6.95

Full Handshaking Null Modem Adapters

Self-contained null-modem (cross-over) adapters. Change any standard straight cable into a null cable quickly and easily.


26260

Internal pin configuration:
26260/17224: 1-1, 2-3, 3-2, 4-5, 5-4, 6-20, 20-6, 7-7, 8-20
26243: 1-1, 2-3, 3-2, 4-8, 8-4, 5-8, 8-5, 6-20, 20-6, 7-7

Part No.	Description	1	10	100
26260	DB25 M to DB25 M	$3.95	$3.49	$2.95
26243	DB25 M to DB25 F	3.95	3.49	2.95
17224	DB25 F to DB25 F	3.49	2.95	2.49

PC Monitor Power Cables

- Allows connection of monitors directly to standard IBM type power supplies
- Monitor turns on/off automatically via system power switch
- IBM PC/XT and higher compatibles
- See page 56 for more power adapter cables

SALE


26382

Part No.	Description	1	10	100
177447	1' monitor cable	$2.95	$2.49	$2.15
26382	6' monitor cable	3.19	2.79	2.49

Serial Null Modem Cables

- Molded type connectors • Color: gray

181403/180697 Pin outs: 1–7 & 8; 2-3; 3-2; 4-6; 5-5; 6-4; 7 & 8-1
181438 Pin outs: 2-2; 3-3; 5 & 6-4; 7-5; 8-7; 20-6 & 8 (Serial Printer Null Modem)
180582 Pin outs: 2-2; 3-3; 4-5 & 6; 5-7; 6 & 8-20; 7-8; (Serial Printer Null Modem)
180742 Pin outs: 1-4 & 5; 2-2; 3-3; 4-6; 5-7; 6-20; 7-8; 8-8
180726/181251 Pin outs: 2-3; 3-2; 4 & 5-8; 6-20; 7-7; 8-4 & 5; 20-6


180697


180582

SALE


180742

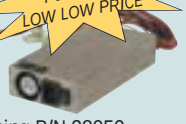

180726

Part No.	Description	Length (ft.)	Weight (lbs.)	1	10	50
181403	DB9 female to DB9 female	6	0.3	$5.69	$5.09	$4.59
180697	DB9 female to DB9 female	10	0.4	6.79	6.09	5.49
181438	DB25 male to DB9 female	6	0.4	4.95	4.49	3.95
180582	DB25 male to DB9 female	10	0.4	5.95	5.49	4.95
180742	DB25 female to DB9 female	10	0.5	5.95	5.35	4.79
180726	DB25 male to DB25 male	6	0.5	4.95	3.69	2.59
181251	DB25 male to DB25 female	25	1.2	1.99	1.79	1.59

ATX 150-Watt

- **Output:**
  +3.3V @ 6A
  +5V @ 10A
  +12V @ 6A
  +5VSB @ 0.72A
  -5V @ 0.2A -12V @ 1A
- 20-pin ATX form factor
- Mating input conn.: suggest using P/N 38050 power cord, pg 56 – not included • Built-in fan
- Input volt.: 115/230VAC @ 50-60Hz (auto switching) • Power on/off switch

Special Purchase LOW LOW PRICE



Part No.	Product No.	Description	1	10	25
196189	MPW-6150F	150W	**$34.95**	**$31.49**	**$27.95**

AT 200-Watt

- **Output:**
  +5V @ 20A
  +12V @ 8A
  -5V @ 0.5A
  -12V @ 0.5A
- Input voltage: 115/230VAC @ 50-60Hz (switchable)
- AT compatible connectors
- Built-in fan



Includes: 6' power cord

Part No.	Product No.	Description	1	10	25
172822	AA-230	200W ...	**$44.95**	**$39.95**	**$35.95**

ATX 250-Watt + 250-Watt Redundant

- **Output:**
  +3.3V @ 15A
  +5VSB @ 1.5A
  +5V @ 30A
  +12V @ 14A
  -5V @ 0.5A -12V @ 1A
- Hot swappable; power fail alarm
- Input volt.: 90-264VAC @ 47-63Hz (auto ranging)
- Built-in fan • 20-pin ATX form factor
- Internal OR-ing diode for redundant operation

SALE



Part No.	Product No.		1	10	25
201443	EPR2251		**$199.95**	**$179.95**	**$159.95**

Part Number	Mfr.	Product Number	Watts (W)	Output (VDC/A)	Input (VAC @ Hz)	Input Connector (Mating Connector/Cord)	Output Connector (Mating Connector)	Certification	Size (L" x W" x H")	Wt. (lbs.)	Pricing 1	10	25
101813	Compaq	141688003	73	+5/10, +12/1.5, -5/0.3, -12/0.3	100/240 @ 50-60 switchable	3-prong AC receptacle (P/N 38050, pg 56)	AT	UL/CSA/TUV	6.6 x 3.8 x 2.9	2.1	**$14.95**	**$12.95**	**$10.95**
189704	Astec	SA1453490	145	+5/18, +12/6, -5/0.3, -12/0.8	100-240 @ 50-60	3-prong AC receptacle (P/N 38050, pg 56)	IBM AT	UL/CSA/VDE/CE	5.9 x 5.5 x 3.4	2.3	**29.95**	**22.95**	**16.95**
196189	Emaos	MPW-6150F*	150	+3.3/6, +5/10, +12/6, +5VSB/0.72, -5/0.2, -12/1	115/230 @ 50-60 switchable	3-prong AC receptacle (P/N 38050, pg 56)	ATX	UL/CUL/TUV/CE	7.5 x 4.0 x 1.6	2.5	**34.95**	**31.49**	**27.95**
202788	Enhance	SFX2015	150	+3.3/7, +5/12, +12/5, +5VSB/0.8, -5/0.2, -12/0.3	115/240 @ 47-63 switchable	3-prong AC receptacle with 6' power cord	ATX	UL/CUL/TUV/CE	5.9 x 3.6 x 3.4	2.1	**34.95**	**26.95**	**19.95**
172822	Mean Well	AA-230*	200	+5/20, +12/8, -5/0.5, -12/0.5	115/230 @ 50-60 switchable	3-prong AC receptacle with 6' power cord	AT	CSA/TUV/CE	6.0 x 4.6 x 3.4	2.6	**44.95**	**39.95**	**35.95**
200694	Compaq	DPS-200PB-38	200	+5/22, +12/7, -5/0.15, -12/0.15	110/230 @ 50-60 switchable	3-prong AC receptacle (P/N 38050, pg 56)	AT	UL/CSA/TUV	5.5 x 5.9 x 3.5	2.8	**39.95**	**29.95**	**22.95**
177535	Trimag	BM5200	200	+5/19.8, +12/7.3, +5VSB/0.8, -5/0.2, -12/0.3	115/240 @ 47-63 switchable	3-prong AC receptacle with 6' power cord	XT/AT	UL	8.7 x 5.6 x 4.7	5.5	**39.95**	**29.95**	**22.45**
67467	Astec	PX-200U	200	+5/20, +12/8, -5/0.5, -12/0.5	110-220 @ 47-63 switchable	3-prong AC receptacle with 6' power cord	PC/XT/AT	UL/CSA	9.5 x 5.5 x 4.6	4.5	**49.95**	**42.95**	**36.95**
190094	Delta	DPS200PB	200	+3.3/20, +5/20, +12/8, -5/0.5, -12/0.5	100-240 @ 50-60	3-prong AC receptacle (P/N 38050, pg 56)	IBM AT	UL/CSA/TUV	5.5 x 5.9 x 3.4	3.2	**19.95**	**14.95**	**10.95**
190107	Minnebea	AF00128	200	+3.3/20, +5/20, +12/8, -5/0.5, -12/0.5	100/240 @ 50-60	3-prong AC receptacle (P/N 38050, pg 56)	IBM AT	UL/CSA/TUV	5.5 x 5.9 x 3.3	3.4	**19.95**	**14.95**	**14.95**
190115	API	API-3186S	200	+3.3/20, +5/20, +12/8, -5/0.5, -12/0.5	100/240 @ 50-60	3-prong AC receptacle (P/N 38050, pg 56)	STD AT	UL/CSA/TUV	5.5 x 5.9 x 3.7	3.5	**17.95**	**13.95**	**10.95**
190123	Golden Systems	GPC200-5000	200	+3.3/20, +5/20, +12/8, -5/0.5, -12/0.5	100-240 @ 50-60 switchable	3-prong AC receptacle (P/N 38050, pg 56)	IBM AT	UL/CUL/TUV	5.5 x 5.9x 3.7	4.2	**19.95**	**14.95**	**10.95**
190131	Win	MCX-200PF	200	+5/20, +12/8, -5/0.5, -12/0.5	115/230 @ 50-60	3-prong AC receptacle (P/N 38050, pg 56)	IBM AT	UL/CSA	5.5 x 5.9 x 3.6	2.7	**19.95**	**14.95**	**14.95**
196111	SPI	FSP23560GT	235	+3.3/14, +5/22, +12/8, +5VSB/0.8, -5/0.3, -12/0.8	100/240 @ 50-60 switchable	3-prong AC receptacle (P/N 38050, pg 56)	ATX	UL/CUL/TUV/CE	5.6 x 5.9 x 3.4	3.2	**34.95**	**31.49**	**27.95**
196437	Hipro	HP235NLXAK	235	+3.3/14, +5/25, +12/8, +5VSB/0.1, -5/0.5, -12/0.5	115/230 @ 50-60 switchable	3-prong AC receptacle (P/N 38050, pg 56)	ATX	UL/CSA/TUV/CE	5.5 x 5.9 x 3.2	3.2	**29.95**	**22.95**	**17.25**
152514	High Power	JE8250	250	+3.3/16, +5/25, +12/10, +5VSB/1.5, -5/0.5, -12/0.5	115/230 @ 50-60 switchable	3-prong AC receptacle with 6' power cord	ATX	UL/CSA/TUV	5.5 x 5.9 x 3.4	3.3	**49.95**	**44.95**	**39.95**
174465	Logic Concept	LC250C	250	+5/20, +12/10, -5/0.5, -12/0.5	110/220 @ 50-67 switchable	3-prong AC receptacle with 6' power cord	AT	UL/CSA/TUV/CE	5.5 x 5.9 x 3.4	2.0	**49.95**	**44.95**	**39.95**
152194	American Media	JE2031	250	+3.3/14, +5/25, +12/10, +5VSB/1.5, -5/0.5, -12/0.5	115/230 @ 50-60 switchable	3-prong AC receptacle with 6' power cord	ATX	UL/CSA/TUV	6.0 x 5.5 x 3.4	3.5	**59.95**	**53.95**	**47.95**
201427	Xtreme Power	EPA250	250	+3.3/16, +5/25, +12/10, +5VSB/2, -5/1, -12/1	115/230 @ 47-63 switchable	3-prong AC receptacle with 6' power cord	ATX	UL/CSA/TUV/CE	5.5 x 5.4 x 3.4	5.0	**49.95**	**37.95**	**28.95**
205938	TGR	FA250N16	250	+3.3/14, +5/25, +12/10, +5VSB/3, -5/0.5, -12/1	115/230 @ 50-60 switchable	3-prong AC receptacle (P/N 38050, pg 56)	ATX	UL/CUL/TUV/CE	5.5 x 6.0 x 3.5	3.5	**49.95**	**44.95**	**39.95**
191505	Hipro	HP250NLXAA	250	+3.3/14, +5/27, +12/9, +5VSB/0.1, -5/0.5, -12/0.5	115/230 @ 50-60 switchable	3-prong AC receptacle (P/N 38050, pg 56)	ATX	UL/CSA/TUV/CE	5.5 x 5.9 x 3.5	3.1	**39.95**	**29.95**	**20.95**
203609	Manpower	PP-250V	250	+5/25, +12/10, -5/0.3, -12/0.5	115/230 @ 50-60 switchable	3-prong AC receptacle with 6' power cord	IBM AT	UL/CSA/TUV/CE	5.6 x 5.9 x 3.4	3.8	**49.95**	**44.95**	**39.95**
201443	Etasis	EPR2251*	250/250 Dual	+3.3/15, +5/30, +12/14, +5VSB/1.5, -5/0.5, -12/1	90-264 @ 47-63 auto ranging	3-prong AC receptacle with 6' power cord	AT	UL/CUL/TUV/CE	7.0 x 3.4 x 9.0	2.6	**199.95**	**179.95**	**159.95**
155811	—	JE5300	300	+3.3/14, +5/25, +12/12, +5VSB/0.8, -5/0.5, -12/0.5	115/230 @ 50-60 switchable	3-prong AC receptacle with 6' power cord	ATX	UL/CSA/TUV	5.9 x 5.5 x 3.2	4.1	**79.95**	**71.95**	**64.95**
155539	American Media	JE2033	300	+3.3/14, +5/30, +12/8, +5VSB/1.5, -5/0.5, -12/0.5	115/230 @ 50-60 switchable	3-prong AC receptacle with 6' power cord	ATX	UL/CSA/TUV	5.9 X 5.5 X 3.4	3.7	**69.95**	**62.95**	**56.95**
196728	L &C	LC300ATX	300	+3.3/14, +5/25, +12/10, +5VSB/1, -5/0.5, -12/0.5	115/230 @ 50-60 switchable	3-prong AC receptacle (P/N 38050, pg 56)	IBM AT	UL/CSA/TUV/CE	6.0 x 5.5 x 3.4	2.5	**69.95**	**53.95**	**39.95**
132185	APS	JE1035	300	+3.3/28, +5/30, +12/10, -5/1, -12/1	110/220 @ 50-60 switchable	3-prong AC receptacle with 6' power cord	IBM AT	UL/CSA/TUV	5.5 x 5.9 x 3.4	4.7	**109.95**	**99.95**	**89.95**
205639	Sunpower	SQ-3005	300	+5/30, +12/12, -5/0.5, -12/0.5	115/230 @ 50-60 auto switching	3-prong AC receptacle with 6' power cord	IBM AT	UL/CSA/VDE	5.6 x 5.9 x 3.4	4.1	**59.95**	**53.95**	**48.95**
201435	Xtreme Power	EPA400	400	+3.3/33, +5/45, +12/15, +5VSB/1, -5/1, -12/1	115/230 @ 47-63 switchable	3-prong AC receptacle with 6' power cord	ATX	UL/CSA/TUV/CE	5.6 x 5.9 x 3.4	5.0	**109.95**	**82.95**	**57.95**

* See photo above

Part Number Color Code: New Sale Refurbished Closeout

ATEN SVGA Monitor Splitters

Duplicate a video signal from one source to monitors up to 210 feet away.



176866



133866

- Suitable for SVGA, VGA & multisync monitors

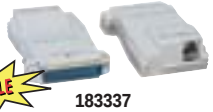
176866: 2-channel
- 1 HDDB15 male connector from PC to box; 2 HDDB15 female connectors from box to monitors
- Size: 6.6"L 3.3"W x 1.1"H • Weight: 1.4 lbs.

133866: 4-channel
- Slide switch for video signal gain control
- Daisy chainable • One-year warranty
- Size: 8.8"L x 6.0"W x 1.9"H • Weight: 3.6 lbs.

Includes: Power adapter and manual

Part No.	Description	1	10
176866	2-channel monitor splitter	$49.95	$44.95
133866	4-channel monitor splitter ..	68.95	61.95

Printer Port Extenders



SALE

183337



183329

- 4-wire phone line transfer of parallel printer data
- Maximum distance: 1300' (396 meters)
- Maximum data transfer speed: 21kb/sec.
- Non-powered

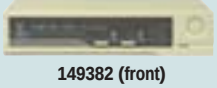
183337:
- Transmitter & receiver – DB25M & RJ11 (6P4C) jack
- Size (transmitter & receiver): 3.0"L x 1.9"W x 0.9"H

183329:
- Transmitter: DB25M and RJ11 (6P4C) jack
- Receiver: 36-pin Cent. male and RJ11 (6P6C) jack
- Size (transmitter): 3.1"L x 1.9"W x 0.9"H
- Size (receiver): 2.6"L x 2.1"W x 0.9"H

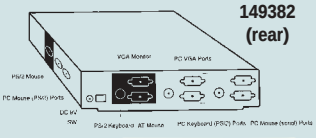
Includes: 25 ft. RJ11 cable

Part No.	Description	1	10
183337	Printer port (DB25M)	$34.95	$31.45
183329	Printer port (Cent. 36M)	49.95	42.95

ATEN K/V/M Switch Boxes for up to 4 Computers

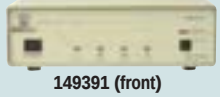


149382 (front)

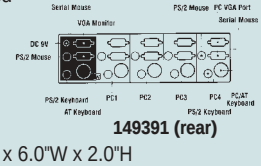


149382 (rear)

- Selects any computer by hot keys or switch
- Serial and PS/2 mouse & keyboard emulation for automatic PC boot up
- Three stage cascadable for accessing more computers
- Supports SVGA, VGA and Multisync monitors
- Keyboard LED status recorded and restored while switching among computers
- Auto scan for monitoring PC periodically
- One-year warranty



149391 (front)



149391 (rear)

- Size (149382): 9.0"L x 6.0"W x 2.0"H (149391): 10.0"L x 7.0"W x 3.0"H

Includes: Manual & power supply (9VDC @ 600mA)

Part No.	Description	Wt. (lbs.)	1	10
149382	2 computers	4.0 ...	$149.95	$129.95
149391	4 computers	7.1	229.95	209.95

Bidirectional Non-Buffered Serial-to-Parallel Converter



ATEN

- Bidirectional conversion of parallel and serial signals
- Serial interface: hardware handshake RTS/CTS, software handshake XON/XOFF; DCE/DTE selectable; parity: odd, even, or no parity; data bits: 7, 8
- Connectors: one DB25 female and one Centronics 36-pin male
- Stop bits: 1 or 2 • Baud rate: 300 to 38,400bps
- Size: 4.0"L x 2.5"W x 1.0"H • Weight: 0.8 lbs.
- One-year warranty

Includes: AC adapter (9VAC @ 200mA) and manual

Part No.	Description	1	10	25
116935	Bi-converter	$49.95	$44.95	$39.95

4 & 2-Port Auto Printer Switches



177421



SALE

177404

- Connects up to 4 PCs to 1 printer or 4 printers to 1 PC
- Non-powered
- Compact size
- Auto form-feed selectable
- Transparent to user

177421: bidirectional; 3.5" software included; 5 DB25 female connectors
177412: 5 DB25 female connectors
177404: 3 DB25 female connectors

ATEN

Part No.	Description	1	10	25
177421	1 to 4 or 4 to 1	$7.75	$6.96	$6.26
177412	4 to 1 printer	6.49	5.82	5.23
177404	2 to 1 printer	3.59	3.25	2.95

Switch Box Adapter Cables



174772



205655

177261: • 2' gray 6-pin mini DIN M-M non-coiled cable for P/N 79177 switch box, pg 149
114913: • 5' gray 5-pin DIN M-M coiled cable for P/Ns 114163/114155 switch boxes, pg 149
174772: • 6' black 6-pin mini DIN M-M
174908: • 6' gray 6-pin mini DIN M-M
112627: • 10' gray 6-pin mini DIN M-M non-coiled cable for P/N 79177 switch box, pg 149

Part No.	Description	Length	1	10	50
177261	6-pin mini DIN	2' (gray)	$2.95	$2.25	$1.59
114913	5-pin DIN	5' (gray)	4.95	4.49	3.95
174772	6-pin mini DIN	6' (blk)	4.95	3.69	2.59
174908	6-pin mini DIN	6' (gray)	5.75	5.15	4.65
112627	6-pin mini DIN	10' (beige)	7.95	7.25	6.49
205655	6-pin mini DIN	25' (beige)	8.95	7.95	6.95

4-In/2-Out Parallel Switcher



SALE

- Connects 4 PCs to 2 parallel printers
- 4-in/2-out, first-come first-serve auto switch
- Outputs operate simultaneously
- 100kb/sec. data throughput
- Supports flexible broadcast modes
- 5/10/25/60 seconds time out and form feed selectable
- Easy to use front panel button operation
- Input and output connector: DB25 female
- Includes user's manual, 3.5" disk, and 9VDC @ 600mA AC adapter
- Size: 10.7"L x 5.7"W x 1.5"H
- Weight: 3.1 lbs.

Part No.	Description	1	10
183370	4-in/2-out parallel switcher	$5.59	$4.95

ATEN Reversible Parallel Printer Switch

2 computers to 1 printer, or 1 computer to 2 printers



- Switchable via software or switch
- Supports IEEE 1284 nibble mode
- First-come, first-served transfer
- Windows®/DOS compatible
- AC adapter (not included – recommend P/N 100853, pg 61)
- Non-powered (passive)
- 3 DB25-F connectors
- One-year warranty
- Size: 4.0"L x 3.3"W

Includes: Software and manual

Part No.	Description	1	10
127221	1st come, 1st serve transfer	$22.95	$20.65

IEEE 488 to Centronics Parallel Printer Converter



- Connects an IEEE 488 device to a parallel printer
- IEEE 488 24-pin female input connector
- Centronics 36-pin male output connector
- DIP switch configurable to 31 IEEE 488 addresses
- Size: 4.0"L x 2.5"W x 1.0"H
- Weight: 0.9 lbs.
- One-year warranty

Includes: 9VDC @ 300mA wall transformer

Part No.	Description	1	10
122964	IEEE to Centronics convtr.	$54.95	$49.45

Phone 1-800-831-4242
Online www.Jameco.com

Order Anytime 24x7x365

Fax 1-800-237-6948



2-Way & 4-Way Monitor/Keyboard/Mouse-to-PC Switch Boxes

HDDB15/5-Pin DIN/DB9M


132249


134017

- Allows 2 or 4 users to share one PC system
- Internal diodes maintain keyboard in powered state when switching between systems
- Each user may need 2 or 4 sets of the following cables: P/N 66173, DB15HD M-M for monitor; P/N 114913, 5-pin DIN M-M for keyboard; P/N 132345, DB9 F-F for serial mouse (cables, pgs 144 & 146)
- Size: 7.5"L x 5.3"W x 2.8"H

Part No.	Description	Wt. (lbs.)	1	10
132249	2-user switch box	1.6	$17.95	$15.95
134017	4-user switch box	2.3	21.95	19.95

Keyboard/Monitor-to-PC Switch Box

HDDB15/5-Pin DIN Female



- 2-way switch box
- For 2 PCs connected to 1 keyboard and 1 monitor – diodes maintain keyboard in powered state
- Size: 6.0"L x 4.0"W x 2.3"H
- Weight: 1.3 lbs.

Part No.	Description	1	10
114155	2 computers	$14.95	$13.49

Keyboard/Monitor-to-PC Switch Box

HDDB15/6-Pin Mini DIN Female



- Connects 2 monitors and 2 keyboards to a PC
- Size: 6.0"L x 4.5"W x 2.6"H
- Weight: 1.3 lbs.

Part No.	Description	1	10
79177	2-way switch box	$16.95	$15.25

Serial Port-to-PC Switch Boxes

DB9 Female


79126




183417

- Connects 2 or 4 serial ports to a PC

79126: 2-serial port switch box
- Size: 6.0"L x 4.8"W x 2.5"H
- Weight: 1.2 lbs.

183417: 4-serial port switch box
- Size: 6.1"L x 4.0"W x 2.2"H
- Weight: 1.3 lbs.

Part No.	Description	1	10
79126	2-serial port switch box	$9.95	$8.95
183417	4-serial port switch box	19.95	17.95

Network Devices-to-Server Switch Box

RJ45 8P8C Female





- Connects network devices to 4 servers
- 5 RJ45 8P8C females
- Size: 8.0"L x 6.1"W x 2.2"H
- Weight: 2.0 lbs.

Part No.	Description	1	10
180099	4-server RJ45 switch box	$16.95	$15.25

Fax/Modem/Telephone-to-PC

RJ11 6P6C Female


79142

180161

- Connects fax, modem, or telephone to 2 or 4 PCs

79142: 2-PC switch box
- Size: 6.0"L x 4.8"W x 2.5"H
- Weight: 1.2 lbs.

180161: 4-PC switch box
- Size: 8.0"L x 6.0"W x 2.2"H
- Weight: 2.0 lbs.

Part No.	Description	1	10
79142	2-PC RJ11 switch box	$9.95	$8.95
180161	4-PC RJ11 switch box	15.95	14.49

Monitor/Mouse/Keyboard Cables



141284

- 6' or 32'
- HDDB15 male/female for monitor, 5-pin DIN male/female for keyboard, and DB9 male/female for mouse

Part No.	Description	Wt. (lbs.)	1	10
141284	6' cable	1.6	$22.95	$19.95
141276	32' cable	4.8	39.95	35.95

DB9-to-DB25 AT-Adapter Serial Cables


31721

- For DB9 serial ports which need to be converted to DB25 serial
- AT and compatibles
- Molded DB9 female to DB25 male connectors

Part No.	Description	1	10	100
109583	1'serial, beige	$4.35	$3.95	$3.49
189333	3'serial, beige	3.95	2.95	2.09
31721	6'serial, beige	4.95	4.49	3.75
191361	6'serial, gray	4.95	3.75	2.65
155521	10'serial, beige	4.49	3.49	2.49
207790	4' serial, beige	4.49	3.95	3.59

VGA Monitor Cables


66173

- Connects video card to VGA monitor
- IBM PC/XT and higher compatibles
- HDDB15 male to male

Part No.	Description	1	10	100
66173	6' monitor cable	$6.49	$5.89	$5.29
148523	10' monitor cable	6.95	6.25	5.59

DB9 Extension Cables


132345


25700

- All lines connected straight through

132345/196365:
- DB9 female to DB9 female cable with thumbscrews

25700/148515/199638:
- DB9 male to DB9 female cable with thumbscrews

181665: • DB9 male to DB9 male cable

Part No.	Description	1	10	100	1000
132345	6' F-F	$4.95	$4.49	$3.95	$3.49
199638	6' M-F (black)	4.49	3.59	2.69	1.89
25700	6' M-F	6.49	5.79	5.19	4.69
196365	10' F-F	6.95	6.25	5.59	4.95
148515	10' M-F	7.49	6.79	5.99	4.95
181665	10' M-M	6.95	6.25	5.59	4.95

Parallel Printer-to-PC Switch Boxes

DB25 Female


20095


155512


20124

- Connects 2 or 4 PCs to one printer

20095: 2-PC switch box
- Size: 6.0"L x 5.8"W x 2.3"H
- Weight: 1.3 lbs.

155512: 2-PC switch box
- Size: 7.2"L x 4.9"W x 2.5"H
- Weight: 2.3 lbs.

Includes: DB25 M-M cable

20124: 4-PC switch box
- Size: 6.0"L x 4.0"W x 2.4"H
- Weight: 1.5 lbs.

Part No.	Description	1	10
20095	2 PC switch box	$8.95	$7.95
155512	2 PC switch box	5.95	5.39
20124	4 PC switch box	14.95	13.49

4-Port RS-232 Smart Switch/Port Combiner



Often called "line sharers or "code activated switches" this smart switch can be used to connect one RS-232 port to four or more different serial devices. This switch can be controlled in two ways:
1) referred to as "smart switch mode", the switch is controlled by sending a preamble (usually three characters) to the master port. One character of the preamble code is user programmable by internal switch setting.;
2) referred to as "port combiner mode", a slave port can gain access to the master port by asserting a handshake line (RTS for DTE slave ports, CTE for DCE slave ports).

- Supports TD, RD, RTS, and CTS
- Baud rates from 1200 to 115.2kbps (internal switch selectable)
- Master port connector: DB25 female
- Slave port connector: 4 each DB9 female
- Size: 4.8"L x 2.8"W x 0.9"H

Requires: 12VDC @ 100mA power supply

Part No.	Description	1	10
198070	Switch/port combiner	$148.95	$133.95
204071	Power supply	14.95	14.25

Two-PS/2 K/V/M Switch Box



Allows one user with one keyboard, mouse and monitor to access two PS/2 systems.

- Switch between computers manually or via keyboard hot-keys
- Auto scan feature switches between computers
- Small design of switch increases work space
- Input connectors (from PC to switch box): 6-pin mini DIN female (PS/2) for keyboard and mouse, HDDB15 male for monitor • Weight: 0.9 lbs.
- Output connectors (from switch box to user): 6-pin mini DIN female for keyboard and mouse; HDDB15 female for monitors • Size: 6.7"L x 3.8"W x 1.4"H

Part No.	Description	1	10
190916	2 computer switch box	$69.95	$62.95
204062	6' cable	16.95	15.29

19" Rack Mount Enclosures

Perfect for equipment setup in home, studio or laboratory.



- Ventilation holes on all sides
- Front and back panels are steel w/ aluminum, pre-punched face plates
- Top, bottom, sides durable 0.035" steel
- Front panel: 0.12" Thick • Black front panel
- All enclosures have handles except P/N 132812

Includes: Mounting screws

Part Number	Dimensions (In.) H1	H2	D	Weight (lbs.)	Pricing 1	10
132812	1.73	1.25	9.75	6.2	$34.95	$29.95
132821	3.46	3.0	9.75	7.9	47.95	43.49
132839	3.46	2.88	11.75	9.1	53.95	48.59
132847	5.22	4.75	11.75	10.6	51.95	46.95
132855	5.22	4.75	13.50	11.8	73.95	66.95
132863	8.56	8.0	13.50	15.4	94.95	84.95

19" Industrial Chassis with PC-AT 300-Watt Power Supply

EIA RS-310C Compliant



- Back panel with 12 open slots
- Supports one 3.5" and two 5.25" external accessible bays and two 3.5" internal bays
- Use with 14-slot PC-BUS compatible backplane P/N 135061, above right
- Removable disk drive bay w/ shock resistant design
- Front 12VDC cooling fan with removable air filter screen and mesh
- Waterproof front panel
- Color: gray • Weight: 37 lbs.
- Size: 16.8"L x 16.9"W x 7.0"H

Includes: Mounting hardware

Part No.	Description	1	10
146851	19" chassis w/ 300W PS	$295.95	$269.35

19" Rack Mount Enclosure for 14" Monitor



- Clear glass front panel
- Hinged door for accessing monitor controls
- Color: gray
- Size: 19.0"W x 15.1"D x 14.0"H
- Weight: 30 lbs.

Part No.	Description	1	10
136021	Enclosure for 14" monitor	$249.95	$224.95

19" Rack Mount Drawer with Keyboard and Trackball



- Occupies a single unit (IU) rack space
- 5-pin DIN connector for keyboard and DB9 connector for trackball
- Color: gray
- Size: 19"W x 13"D x 2.8"H
- Weight: 18 lbs.

Includes: Wrist pads, module and software

Part No.	Description	1	10
150471	Rack mount KB drawer	$239.95	$216.95

16-Slot ISA-PCI-PICMG Passive AT Backplane



- Ten 16-bit ISA slots, four 32-bit PCI slots and two 48-bit PICMG slots
- LED indicators for ±5V/±12V
- Compatible with P/N 146851 (below left)
- Size: 12.5"L x 10.0"W
- Weight: 1.9 lbs.

Part No.	Description	1	10
135061	Passive AT backplane	$119.95	$109.95

Cabinet Mounting Plate for 19" Cabinet



- Use as industrial chassis mounting plate for servers, PCs or patch panels
- Made of industrial grade steel and aluminum
- Size: 19.0"W x 15.8"D x 3.5"H • Color: beige

Part No.	Description	1	10
149500	Cabinet mount plate	$39.95	$35.95

Removable HD Rack and Insert



- For quick drive swapping
- Removable storage for 3.5" IDE drive
- Power LEDs
- Keylock for security

196040:
- Size: 5.8"W x 8.5"D x 1.5"H
- Weight: 1.2 lbs.

196031:
- Size: 4.1"W x 7.5"D x 1.6"H
- Weight: 0.8 lbs.

Includes: Inner cable with IDE connector

Part No.	Description	1	10	25
196040	IDE rack w/ insert	$27.95	$20.95	$14.69
196031	Insert for 196040	19.95	17.99	15.99

19" Cable Management Racks

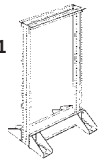
Make your cable looms neat and organized with our 2 unit cable management rack. Simply slip in the cable between spaces and route them to their destinations.



Part No.	Description	1	10
208776	Ducting type cable holder	$27.49	$24.75
209031	C clamp type cable holder	21.95	19.95

Relay Rack & Rack Panels

Rack:
- Black powder coat finish
- 10-32 threaded holes
- Used with 19" wide panels
- 16 gauge CRS base • Size: 84"H
- 1/8" aluminum side rails
- Size (at base): 19.8"W x 15.3"D x 84"H



19" Wide Panel:
- 10-gauge black aluminum
- Size: 1.75"H



Part No.	Description	Wt. (lbs.)	1	10
133751	Relay rack	21.8	$179.95	$161.95
133276	Rack panel	0.4	9.45	8.49

Rack Mount Card Cage



- For 19" rack mounts
- 24 slots
- Weight: 6.3 lbs.
- Fits card size: 6.5"L x 5.5"W
- Size: 6.5"L x 17.3"W x 6.1"D

Part No.	Description	1	10	25
172099	Rackmount card cage	$7.95	$6.95	$6.24

IDE Removable 5.25" Rack Kit for 3.5" Hard Drive w/ Fan



- Supports DMA 66 hard drive
- Removable storage for 3.5" hard drives
- LED for power and hard drive activity
- Retaining lock mechanism
- 12VDC @ 50mA fan • CFM rating: 5.6
- Size: 5.9"W x 8.7"D x 1.6"H • Weight: 1.3 lbs.

Includes: Mounting hardware

Part No.	Description	1	10	25
170608	Rack kit (IDE)	$29.95	$26.95	$23.95

ATX Vertical Computer Enclosures with Power Supply



- Slide-off side panel accesses roomy interior
- One internal 3.5" drive bay
- Back panel supports seven expansion slots
- Three exposed 5.25" and two exposed 3.5" drive bays
- 115V/230V switch
- Size: 8.6"W x 17.8"D x 17.3"H
- Weight: 32.1 lbs.

Includes: Power cord and 8Ω/0.5W speaker

Part No.	Description	Price
140038	250W ATX power supply	$79.95
153066	300W ATX power supply	99.95

SCSI-I External Subsystem Enclosure

For Multiple HDs, Network CD-Servers, RAIDs

One 5.25" Full Height or 2-Half Height Bays





Shown with removable rack (not included)

- Zinc plated metal body w/ streamlined plastic front panel
- Internal SCSI cables with ID address selectors
- Switching power supply
- UL/CSA/TUV approval
- High quality internal SCSI cables
- **SCSI-II & SCSI-III versions can be special ordered**
- Size: 7.1"W x 11.3"D x 6.5"H
- One-year warranty

Part No.	Description	Power	Weight (lbs.)	1	10
129761	SCSI-I: 1full height or 2 half height bays	80W	8.3	$89.95	$80.95

TRIPP-LITE isobar® Surge Protectors


139686


74544


19001

The world's best known, most advanced surge protectors provide total protection against surges, spikes and line noise.

SALE


185113

- Up to $50,000 Ultimate Lifetime Insurance covers Isobar and connected equipment against surge damage for life!
- Diagnostic indicators on Ultra versions alert you to improper outlet wiring, loss of AC power, and damage to protection circuitry
- "Cascade Circuitry" allows you to chose increased noise protection level for your most sensitive equipment
- UL 1449 and 1283 listed
- Lifetime warranty
- IsoTel model has dual RJ11 jacks for complete modem/fax surge protection
- 2, 4 & 6-outlet protectors: 6' cord; 8 and 12-outlet protectors: 12' cord

ULTIMATE LIFETIME INSURANCE

MADE IN USA

Isobar Premium 19" Rack Mount Surge Protector

Part No.	Product No.	Joules	Description	Wt. (lbs.)	1	10
139686	IBAR12RM	750	12 outlet, 2 isolated filters	4.7	$99.95	$89.95

Isobar Premium Surge Protectors

74456	ISOBAR 2-6	600	2 outlet, 1 isolated filter	1.8	$39.95	$34.95
18981	ISOBAR 4	2200	4 outlet, 2 isolated filters	2.4	49.95	44.95
74544	ISOBAR 6	2350	6 outlet, 3 isolated filters	2.7	54.95	49.95

Isobar Ultra Premium Surge Protectors

136830	ISOBAR 4U	2200	4 outlet, 2 isolated filters	2.4	$53.95	$49.95
19001	ISOBAR 8U	2350	8 outlet, 4 isolated filters	3.5	69.95	62.95

Isotel AC/Phone Line Surge Protector

185113	ISOTEL 4U	2700	4 outlet, 2 isolated filters	2.7	$49.95	$44.95

TRIPP-LITE Standard Surge Protectors


168954


124337


32045

Economical and effective spike and noise suppression with diagnostic LEDs.

168954: $5,000 Ultimate Lifetime Insurance
168962: $25,000 Ultimate Lifetime Insurance
124337/32045: $35,000 Ultimate Lifetime Insurance
168962: includes RJ11 jacks for complete dataline protection

Part No.	Product No.	Joules	Description	Wt. (lbs.)	1	10
168954	Striker 7	480	Up to 27,000 amp spikes	1.2	$9.95	$9.25
124337	Super 7	1402	Up to 42,000 amp spikes	1.6	17.95	14.95
168962	Super 7+ TEL	1200	Up to 36,000 amp spikes	2.0	19.95	17.95
32045	Super 8	1200	Up to 54,500 amp spikes	1.7	29.95	26.95

Power Base Surge Protectors

- Maximum surge voltage: 6000V

20159:
- 5 switched AC power outlets, 1 unswitched and 2 RJ11 ports
- Max. energy dissipation: 50 joules/MOV, 150 joules

SALE

20159



195872:
- 5 switched AC power outlets
- Max. energy dissipation: 90 joules

195872



Part No.	Size (W"xD"xH")	Agency	Wt. (lbs.)	1	10
20159	13.9 x 12.7 x 1.7	UL	7.1	$14.95	$13.49
195872	12.0 x 13.0 x 2.3	UL/CUL	7.1	16.95	14.95

TRIPP-LITE Line Conditioners

These line conditioners keep you working through brownouts and overvoltages.

- Automatically adjust incoming AC from 87 to 140 volts
- Built-in surge suppression and noise filtering
- Up to $25,000 Ultimate Lifetime Insurance for connected equipment


24619

Part No.	Product No.	Description	Agency	Wt. (lbs.)	1	10
24619	LS600	600 watts, 2 outlets	UL	4.5	$75.95	$72.95
22744	LC1200	1200 watts, 4 outlets	UL/CSA	8.6	115.45	104.95

TRIPP-LITE Battery-Backed UPS Systems

- Protects your PC, fax/modem and all peripherals against all types of power problems
- Automatic system shutdown with free PowerAlert software for 500VA and 700VA
- Up to $25,000 Ultimate Lifetime Insurance for connected equipment • Up to 45 minutes runtime


191521


185130

191521: 6-outlets, RJ45 for network protection
185130/185148: 6-outlets, RJ11 for fax/modem protection

Part No.	Product No.	Description	Agency	Wt. (lbs.)	1	10
191521	IO300	300VA, 6 outlets	UL/CUL	4.5	$79.95	$72.95
185130	IO500	500VA, 6 outlets	UL/CSA	16.0	134.95	124.95
185148	IO700	700VA, 6 outlets	UL/CSA	20.0	188.95	169.95

POWERWARE 300-VA UPS System

With Dual Outlet

- Protects against blackouts and brownouts
- Battery charging: less than 6 hours to 90% usable capacity
- Battery backup time: 5–10 mins. @ full load; 10–20 mins. with partial load
- Input voltage: 120VAC @ 60Hz
- Output voltage: 120VAC
- Output current: 2.5 amps (full load)
- Size: 3.4"W x 5.8"D x 13.2"H
- Weight: 12.4 lbs.

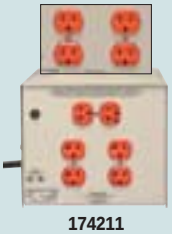


Part No.	Product No.	Description	1	10
179961	PRB300A	300-VA UPS system	$59.95	$53.95

BUSSMANN Line Conditioners

- Protects equipment from normal mode and common mode transients and noise
- Controls high frequency circulating ground currents
- Designed for computer equipment, telecommunications equipment, instrumentation equipment


174203


174211

174191/174203: 4-receptacle
174211: 6-receptacle

SALE

Part No.	Bussman No.	Load Current	Watts	Size (W"xD"xH")	Wt. (lbs.)	1	10
174191	IPS06005R	5A	600	5.3 x 6.0 x 9.0	16.7	$49.95	$44.95
174203	IPS01000R	8.3A	1000	6.0 x 7.0 x 11.0	27.5	69.95	62.95

IBM® 8-Outlet Surge Protectors

- UL1449 Transient voltage: 330V
- Clamping voltage: 270V • 3-line protection
- Electrical rating: 125VAC @ 60Hz
- With integral 15A circuit breaker
- 4 standard/4 transformer outlets
- Max. surge voltage: 6000V
- Sliding outlet cover, LED indicator for surge protection, lighted power switch

191919/191935: Max. spike current: 65,000A
191927: Max. spike current: 52,000A

SALE


191919


191927

Part No.	Joules	Description	Wt. (lbs.)	1	10
191935	1420	Surge protector	2.0	$24.95	$22.49
191927	1420	2 RJ14 ports (cables included)	2.2	29.95	26.95
191919	1820	2 RJ14 & coax ports (cables included)	2.8	34.95	31.49

Part Number Color Code: New Sale Refurbished Closeout

Automatic Voltage Regulator

SALE

LR Series



191302

- Overvoltage and brownout correction LEDs
- Maximum line current: 8A
- 320 joules
- EMI/RFI noise rejection: 50dB
- Size: 6.8"W x 8.4"D x 5.0"H
- $25,000 lifetime equipment protection policy

Part No.	APC No.	Watts	Wt. (lbs.)	1	10
191302	LR600	600	12.5	$109.95	$98.95
191290	LR1250	1250	17.8	149.49	133.39

280-VA Back-Up UPS PRO

BPS Series



- Back-up time at half load: 23.4 minutes
- Typical recharge time: 4 hours
- Surge energy rating: 480 joules
- On-line, on-battery, replace battery, and overload LED status indicators
- Alarm when on-battery, distinctive low battery alarm, overload continuous tone alarm
- RJ45 modem/fax/DSL/10-100 base-T protection
- $25,000 lifetime equipment protection policy
- Size: 3.4"W x 13.3"D x 5.9"H • Weight: 20.4 lbs.

Includes: Manual, Velcro cord management straps, Smart UPS signaling RS-232 cable & CD-ROM

Part No.	APC No.	VA	1	10
191345	BP280S	280	$121.95	$109.95

Notebook Surge Protector-PNOTEPRO



191821

- PNOTEPRO: C8 type connector (2-prong); PNOTEPRO3: C6 type connector (3-prong)
- Surge energy rating: PNOTEPRO – 120 joules; PNOTEPRO3 – 180 joules
- Input connection type: IEC 320
- RJ11 telephone protection
- Five-year standard warranty with $5,000 equipment protection policy • Size: 1.5"H x 1.3"W x 4.8"D

Includes: Manual, 5' telephone cable and Velcro cord

Part No.	APC No.	1	10
191821	PNOTEPRO	$29.95	$37.99
191812	PNOTEPRO3	29.95	26.95

Professional Surge Arrest

PRO7/PRO8 Series



191311

- 7 or 8 outlets with RJ11 modem/fax/DSL protection
- 320 joules
- Peak current normal and common mode: 13kAmps
- EMI/RFI noise rejection: 60dB
- $10,000 lifetime equipment protection policy
- Pro7: 7 outlet; PRO8T2 & PRO28T2C: 8 outlet with RJ11 modem/fax/DSL protection; PRO8TV: 8 outlet w/ coaxial cable and RJ11 modem/fax/DSL protection • Size: 8.0"W x 5.8"D x 1.8"H

Includes: PRO8 series: 5' telephone cable

Part No.	APC No.	Wt. (lbs.)	1	10
191847	PRO7	2.3	$29.95	$26.95
191839	PRO8T2	2.5	42.95	37.95
191311	PRO8T2C	2.5	36.95	34.95
191791	PRO8TV	2.5	49.99	44.99

Personal Surge Arrest



Part No.	APC No.	Weight (lbs.)	1	10
191273	PER3C	1.3	$22.25	$19.95
191265	PER7	2.1	18.75	16.95
191855	PER7T	2.3	25.25	22.75

Basic Surge Protector

P6 Series, 6-outlet



- 120VAC @ 50-60Hz
- $1,000 lifetime equipment protection policy
- 320 joules
- Peak current normal mode: 13kAmps
- Size: 2.2"W x 12.4"D x 1.4"H • Weight: 1.0 lbs

Part No.	APC No.	Description	1	10
191281	P6	6' cord	$14.95	$13.49

Power Manager-POW6T



- 6 outlets • 480 joules
- Peak current normal mode: 13kAmps
- Peak current common mode: 26kAmps
- UL1449 TVSS rating: 330V
- $25,000 lifetime equipment protection policy • Size: 1.7"H x 12.5"W x 14.6"D

Part No.	Prod. No.	Weight (lbs.)	1	10
191804	POW6TWHT	6.0	$74.95	$66.95

6-Outlet Surge Protector



- Input: dual 3-prong input plug
- Surge energy capability: 110 joules
- Surge voltage/current capability: 6000V/4500 to 6000A
- Response time: under 1 ns
- Clamping voltage: 400 volts
- Rating: 125VAC – 15 Amps

Part No.	Description	1	10	25
195848	6-outlet protector	$4.95	$4.49	$3.95

6-Outlet Surge Protectors

156857: Plastic



156857

- Max. spike current: 18,000 amps, 400 joules
- 3-prong, 4' power cord
- Size: 10.3"L x 2.0"W x 1.5"H

20175: Metal



20175

- Max. spike current: 4500 amps, 50 joules
- 3-prong, 4' power cord
- Size: 12.3"L x 2.4"W x 1.3"H

Part No.	Description	Wt. (lbs.)	1	10	100
156857	Plastic pwr strip	1.0	$6.95	$6.25	$5.59
20175	Metal pwr strip	1.5	8.95	7.95	6.95

Serial Cable Surge Suppressor

Protects your sensitive line drivers/receivers against damaging power surges.

SALE



- DB25 (female to male)
- In-line adapter to protect serial devices

Part No.	Description	1	10	100
72371	RS-232 surge sup.	$1.75	$1.59	$1.39

System Power Controller/Surge Protector



185631

- With fax modem protection
- 4 switched AC power outlets, plus 2 unswitched
- Input voltage: 125VAC @ 50-60Hz

185631: Top cover slides out for cord organization and extended outlet

SALE

- 900 joules (AC), 49 joules (phone)
- Max. Spike Current: 12,000A (AC)

185640: Wide outlet spacing to accommodate AC adapters



185640

- 2,250 joules (AC), 120 joules (phone)
- Max. Spike Current: 117,000A (AC)

Part No.	Size (W" x D" x H")	Wt. (lbs)	1	10
185631	13.5" x 14.5" x 1.7"	4.2	$17.39	$15.59
185640	14.0" x 13.5" x 1.7"	4.4	19.99	17.99

SL WAIBER Compact Surge Protector For Notebook Computers



- Single 3-prong receptacle outlet; and telephone modem protection
- 3-prong wall mount type • 210 joule rating • Surge LED indicator
- RFI noise blocker • Size: 3.3"H x 2.3"W x 1.3"D

NEW

Includes: 4' RJ-11 cord

Part No.	Description	1	10	25
206279	Single outlet surge protector	$6.95	$6.25	$5.59

Power Strip Outlet Saver

With our high quality power strip outlet saver, you can use all the outlets on your surge suppressors, UPS, and outlet strips. Just plug a bulky power adapter into this cable and free up your other outlets.





Before
Two Outlets Blocked



After
Every Outlet is Usable

Part No.	Description	Length	Cord Type	1	10	100
199777	AC Power cord (black)	1'	SVT	$1.69	$1.55	$1.35
208338	AC Power cord (beige)	1'	SVT	1.69	1.55	1.35

Power Strip Saver Double Outlet

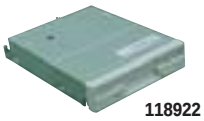
Get full use of your power strips and UPS outlets with the power strip saver. Plug those bulky adapters into these cables and plug the cables into the power strip. Need the extra adapter to be plugged into the power strip? Use the "Y" power strip saver to add an extra adapter.

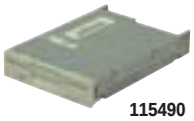


NEW

Part No.	Description	1	10	100
208346	Power strip saver	$2.89	$2.75	$2.59

1.44MB 3.5" Internal Floppy Disk Drives


118922


115490

- IBM PC/XT and higher compatibles
- Compatible with DOS versions 3.3 or higher
- Automatically determines if disk is high or low density • Weight: 1.4 lbs.
- Size: 4.0"W x 5.9"D x 1.0"H (actual drive size)

Part No.	Mfr. Cross Ref. No.	Mfr.	Color	1	10
118922	MPF520-1	Sony	Beige	$24.95	$22.49
115490	FD235	TEAC	Beige	21.95	19.95
189000	D35973	Mits.	Black	17.95	15.95
189173	DF354H011A	Alps	White	15.95	13.95
189165	—	Varies	Beige	9.95	8.95
189350	—	Varies	Black	9.95	8.95
200686	—	Varies	(No Bezel)	6.95	5.95

Triple Density 3.5" Internal Floppy Disk Drive

SONY®

Without Bezel



- Supports 1MB, 1.6MB and 2MB unformatted capacities
- Size: 4.0"W x 5.9"D x 1.0"H
- Weight: 0.8 lbs.

Part No.	Product No.	Manufacturer	1	10
176284	MPF520-7	Sony	$9.95	$9.35

100MB IDE ZIP Drive

iomega



- 100MB capacity per disk
- Average seek time: 29ms
- Transfer rate: 1.4MB/sec.
- IDE interface
- Buffer size: 16k
- Fits in standard 3.5" drive bay
- OS: DOS 6.xx, WIN 3X/9X/NTXX
- Weight: 0.9 lbs.
- One-year warranty

Includes: ZIP disk and ZIP drivers (CD-ROM)

Part No.	Description	1	10
149593	100MB IDE ZIP drive	$69.95	$62.96

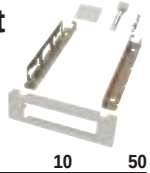
External CD-ROM Case



- SCSI-I interface
- SCSI-ID address selector
- Streamlined appearance
- Metal body with plastic front panel • RCA jack
- 50-watt universal switching power supply
- Size: 6.5"W x 11.8"D x 2.0"H
- Weight: 3.8 lbs.
- Use cable (P/N 73162, pg 154) for connections

Part No.	Description	1	10
126391	SCSI CD-ROM ext. case	$49.95	$44.95

3.5" Drive Mounting Kit



- For mounting a 3.5" floppy drive into a 5.25" slot

Includes: Beige faceplate

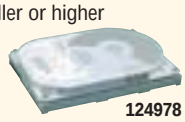
Part No.	Description	1	10	50
32088	Drive mounting kit	$6.95	$6.25	$5.65

IDE, EIDE & SCSI Hard Drives and Mounting Kits

PC/XT/AT and Compatibles

Check out our external mass storage cabinets on page 150!

- IDE drives over 528MB require EIDE controller or higher
- Manufacturers may vary and capacity may exceed specification; we carry Seagate, Western Digital, IBM and others.
- All are 1" in height, except as noted


124978


180857


117217

Part No.	Capacity	Description	Conn. Pins	Wt. (lbs.)	Average Access Time (ms)	Warranty	1	10
137306	528MB	2.5" IDE for portable (.75")	40	0.5	14	3 mos.	$69.95	$62.95
115764	425MB	3.5" IDE	40	1.7	12.5	3 mos.	79.95	71.95
118949	850MB	3.5" IDE	40	1.7	14	1 year	84.95	75.95
124978	1.27GB	3.5" IDE	40	1.1	14	1 year	89.95	80.95
146325	1.7GB	3.5" IDE (Fast ATA-2)	40	1.1	12	1 year	99.95	89.95
146333	2.5GB	3.5" EIDE (Fast ATA-2)	40	1.0	11	1 year	99.95	89.95
151036	3.2GB	3.5" EIDE (Ultra DMA33)	40	1.1	11	1 year	114.95	105.95
151044	4.3GB	3.5" EIDE (Ultra DMA33)	40	1.1	11.5	1 year	119.95	109.95
151052	6.4GB	3.5" EIDE (Ultra DMA33)	40	1.1	9.5	1 year	139.95	125.95
162261	8.45GB	3.5" EIDE (Ultra DMA33)	40	1.2	9.5	1 year	139.95	125.95
200651	10.2GB	3.5" IDE	40	1.1	9.5	3 mos.	139.95	125.95
200660	13.0GB	3.5" IDE (ATA-4)	40	1.1	9.5	3 mos.	144.95	129.95
200678	15.0GB	3.5" IDE	40	1.1	9.5	3 mos.	149.95	134.95
200803	17.2GB	3.5" IDE	40	1.1	9.5	3 mos.	99.95	94.95
189085	1.0GB	SCSI	50	1.3	9.6	3 mos.	39.95	35.95
189894	2.0GB	SCSI (wide, ultra)	68	1.1	8.0	3 mos.	69.95	62.95
199494	2.0GB	SCSI (wide, ultra) (1.5")	68	1.2	8.0	3 mos.	22.95	19.95
190019	2.0GB	SCSI (wide, ultra, SCA)	80	1.1	7.2	3 mos.	19.95	17.95
197579	4.0GB	SCSI (Fast SCSI-II) (1.5")	50	1.3	8.0	3 mos.	79.95	71.95
189122	4.0GB	SCSI (wide, ultra)	68	1.3	9.0	3 mos.	58.36	52.52
188907	4.0GB	SCSI (wide, ultra, SCA)	80	1.2	8.1	3 mos.	89.95	79.95
189131	9.1GB	SCSI (wide, ultra)	68	1.5	6.1	3 mos.	94.95	85.49
189914	9.1GB	SCSI (wide, ultra, SCA)	80	1.4	5.0	3 mos.	149.95	134.95

Part No.	Mfr. Cross Ref. No.	Description	Wt. (lbs.)	1	10	25
180857	HDB35	3.5" hard drive mount kit (short)	0.2	$4.95	$4.49	$3.95
117217	HDMK	3.5" kit (w/ black & gray faceplates)	0.6	7.95	7.25	6.49

16x12x40 Internal CD-R/RW Drive


199751

Floppy disks and ZIP disks do not have enough space for files in today's technology. With files bigger than 1MB there is not enough space for audio files, video files, and photos. With this Internal CD-R/RW you can save your files with capacities of up to 760MB on a single CD.

- 16x for CD-R, 12x for CD-RW, 40x for reading
- Standard EIDE/ATAPI interface
- Supports Ultra DMA/33 • 2MB cache buffer
- Half-height, 5.25" form factor

System requirements: PC486/33 or higher, 8MB of RAM, Windows® 95/98/ME/NT4.0/2000

Includes: Installation guide, CD-R & CD-RW disks, audio cable, mounting screws & CD-ROM drivers

198774: 24X 80 minutes 700MB 50 pack CD-R

Part No.	Description	Wt. (lbs.)	1	10
199751	CD-RW drive	2.8	$109.99	$104.99
198774	50-pack CD-R (700MB)	2.0	14.99	13.49

Internal CD-ROM Drives

- 5.25" half-height design
- One-year warranty
- Manufacturer varies

Includes: Audio cable

* Black faceplate


189819



IDE Drives

Part No.	Speed	Buffer	kB/sec.	Wt. (lbs.)	1	10
149307	24X	256kB	3600	2.6	$34.95	$32.95
189051	32X	128kB	4800	2.6	34.95	31.49
189069	40X	128kB	6000	2.6	39.95	35.95
189819	40X*	128kB	6000	2.6	34.95	31.95
162042	44X	128kB	6600	2.5	59.95	49.95
189077	48X	128kB	7200	2.6	49.95	44.95
189448	56X	128kB	8400	2.3	59.95	53.95

SCSI Drive

Part No.	Speed	Buffer	kB/sec.	Wt. (lbs.)	1	10
189018	12X	128kB	600	2.6	$49.95	$44.95

Internal CD-RW/DVD-R Drive



Up until recently, backing up data and playing DVDs required two drives. With this internal CD-RW/DVD-R unit, you can do both. Watch your favorite DVD on your PC or burn-in data, photos, video clips and presentation files into a CD-R of up to 800MB in 7 minutes.

- Standard EIDE/ATAPI interface
- Compatible with Windows® 95/98/2000/ME

Part No.	Description	Wt. (lbs.)	1	5
200643	12x (CD-R) 10x (CD-RW) 32x (CD Read) 8x (DVD read)	2.0	$169.99	$159.99

Part Number Color Code: New Sale Refurbished Closeout

6" PC Power Supply Extension Cable Set

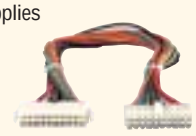
- Two 6", 6-conductor cables
- Use with standard IBM compatible power supplies and motherboards
- Wiring: 18 AWG, 300V rating



Part No.	Description	1	10	100
130809	Extension cable set	$5.49	$4.95	$4.45

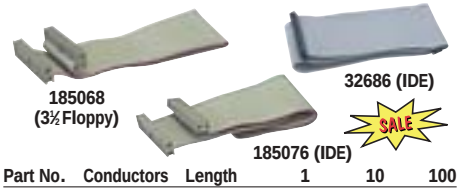
ATX Power Supply 15" Extension Cable

- For use with ATX power supplies
- 20-pin ATX male and female connectors
- Color coded to ATX power supply code
- 15"L x 18 AWG (wires)



Part No.	Mfr. Cross Ref. No.	1	10	100
170237	ATX-400-RV	$5.95	$5.35	$4.75

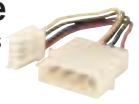
Internal Computer Ribbon Cables



Part No.	Conductors	Length	1	10	100
185068	34	9.0"	$2.95	$2.49	$1.95
185076	40	14.0"	.79	.69	.59
32686	40	18.0"	3.95	3.49	2.95
32715	50	18.0"	3.95	3.49	2.95

3.5" Disk Drive Power Adapter Cable

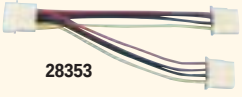
- IBM PC/XT and higher compatibles
- Allows connection of standard 3.5" disk drives to power supplies



Part No.	Length	AWG	1	10	100
28396	3.5"	22	$2.49	$2.25	$1.95

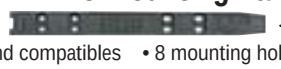
3.5" and 5.25" Disk Drive Power Splitters

- IBM PC/XT and higher compatibles
- Splits 4-line Molex male into 2 females



Part No.	Drive	AWG	Length	1	10	100
28353	5.25"	18	5"	$2.95	$2.65	$2.39
72303	3.5"	22	5"	2.75	2.49	2.19

Drive Mounting Rails



SALE

- AT and compatibles • 8 mounting holes

Includes: All necessary mounting hardware

Part No.	Description	1	10	100
34323	Mounting rails (2)	$.39	$.36	$.32

SCSI Type / Connector Reference Table

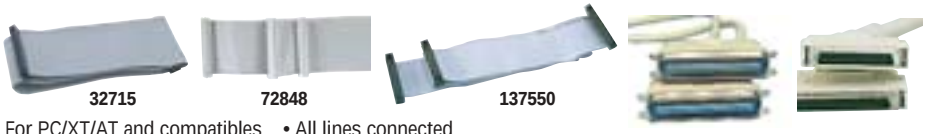
SCSI type	DB25	50-pin Centronics	50-pin Header	Half pitch DB50	Half pitch DB68	VHD68 Centronics	VHD80 Centronics
SCSI-I	✔	✔	✔				
SCSI-II			✔	✔			
SCSI-II wide					✔		
SCSI-III					✔	✔	
RAID: SCA, SCA-2							✔

Disk Drive Cables



Part No.	Description	Cable Length	1	10	100
185084	34-pin header socket ribbon cable for floppy drive	25"	$1.19	$1.09	$.95
32918	34-pin header socket ribbon cable for floppy to card	23"	3.49	2.95	1.95
72805	Two 40-pin header socket ribbon cable for IDE drive	18"	3.69	3.09	2.19
179987	One 40-pin and one 34-pin cable kit	20"/25"	1.19	1.09	.99
175492	40-pin header socket ribbon cable for ultra DMA66/100	17"	6.95	6.25	5.49

Internal and External SCSI Cables for Complete Connectivity



- For PC/XT/AT and compatibles • All lines connected

† Also Macintosh® compatibles, see above for SCSI type connector guide

Part No.	Description	1	10	100
32715	50-pin header socket ribbon cable SCSI-I (18")	$3.95	$3.49	$2.95
72848	50-pin header socket ribbon cable SCSI-I (24")†	4.95	4.45	3.95
137550	68-pin header internal ribbon cable SCSI-III (27")	17.95	15.95	14.49
189641	68-pin header internal ribbon cable with term SCSI-III (42")	9.95	8.95	7.95
180507	Male 50-pin Centronics to male DB25 (SCSI-I) 5.5'	4.79	4.29	3.89
164769	Male 50-pin Centronics to male 50-pin Centronics SCSI-I to SCSI-I (3')†	7.49	6.85	6.19
73162	Male 50-pin Centronics to male 50-pin Centronics SCSI-I to SCSI-I (6')†	6.95	5.19	3.65
118084	Male 50-pin Centronics to male HPDB50 cable SCSI-I to SCSI-II (6')	14.95	13.49	11.95
118914	Male HPDB50 to male HPDB50 SCSI-II to SCSI-II (3')	14.95	13.49	11.95
118076	Male HPDB50 to male HPDB50 SCSI-II to SCSI-II (6')	17.95	15.95	13.95
137576	Male HPDB68-pin to male 50-pin Centronics SCSI-III to SCSI-I (3')	17.95	15.95	13.95
137568	Male HPDB68-pin to male HPDB50-pin SCSI-III to SCSI-II (3')	12.95	11.49	9.95

Computer Card Brackets



- For securing cards into bus slots
- Fits standard PC/XT/AT cases • Length: 4.75"
- See pg 84 for DB connectors

* 1.0" top end to first tab (center hole) – 2.5" tab to tab (center hole)

Part No.	Description	Fig.	1	10	100
11754	Blank back panel	1	$1.79	$1.59	$1.35
139424*	Blank w/ board mt.	2	1.69	1.45	.85
101717	For DB9 connector	3	1.25	1.09	.85
101733	For DB25 connector	4	1.25	1.09	.89
101741	For DC37 connector	5	1.25	.99	.75
101830	For DB9/DB25 conn.	6	1.99	1.79	1.59

Panel Bracket Cable Assemblies

- Standard computer back panel brackets • Length: 12"
- Ribbon cable with header connector

SALE



149614: 2 serial ports
149622: 1 parallel port
179995: 2 serial ports and 1 parallel

Part No.	Description	1	10	25
149614	DB9M to 10-pin header			
	DB25M to 10-pin header	$4.95	$4.49	$3.49
149622	DB25 to 26-pin header	4.95	4.49	3.59
179995	DB9M to 10-pin header			
	DB25M to 10-pin header			
	DB25F to 26-pin header	1.19	1.09	.99

CD-ROM Audio Cables



- 2 x 28 AWG

127546/201558: • Compatible with most CD-ROMs

168612: • Use with Creative Labs, Sony or generic sound cards

- 3 connectors on each end of wire: 4-position (.100") housing connector; 4-position (.100") Molex-type keyed connector; 3-position (.100") Molex-type keyed connector

Part No.	Connection from Sound Blaster to	Length	1	10	50
127546	Sony/MPC2	25"	$2.95	$2.65	$2.29
201558	Sony/MPC2	18"	2.95	2.59	2.29
168612	Universal	18"	3.95	3.49	3.09

CD Accessories



Part No.	Description	1	10	100
172179	Single jewel case	$.29	$.26	$.21
208514	Paper envelope 25 pk.	2.49	2.19	1.99
208506	Clamshell case 10 pk.	3.99	3.59	3.19
208485	Slim black 10 pk.	3.99	3.59	3.19
208493	Slim asst. color 10 pk.	4.95	4.45	3.95
76591	Caddy	4.59	4.08	3.67
148179	Holds 24 CDs	5.95	5.45	5.09

Programmable Dual-Fan Cooler with Multiple Sensors

- Fits 5.25" bay
- 5.3 CFM (per fan)
- Audible overheat alarm
- Digital display: 1.86"W x 1.0"H
- Backlight color: green
- Measures two sensors
- Size: 6.0"W x 2.4"D x 1.7"H
- Weight: 0.5 lbs.



SALE

Includes: CR2032 3V battery and one sensor

Part No.	Description	1	10	25
148742	Dual fan cooler	$27.69	$24.95	$22.49

Internal PC Cooling Fan

Direct Air Flow to Internal Hot Spots

- 27 CFM
- Noise: 27dBA
- Fan life: 25,000 hrs
- Rated voltage: 12VDC @ 200mA
- Input power: 1.44W max.
- Operating voltage: 12VDC
- Connector: 4-pin male/female (pass thru) Molex type
- Size: 3.4"W x 1.3"D x 3.6"H



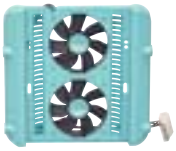
SALE

Part No.	Description	1	10	25
138966	Cooling fan	$7.95	$7.15	$6.45

5.25" Hard Drive Cooling Assembly

Dual Fans for Even Cooling

Keep your hard drive cool by using less space. These hard drive cooling fans have 2 high-airflow fans that provide 70% heat dissipation.



- RPM per fan: 3800
- Combined airflow: 28 CFM
- Dual 12V sleeve bearing fan
- Power consumption: 1.44W each
- Easy installation
- Size: 5.7"L x 5.5"W x1.2"H

SALE

Includes: Mounting hardware

Part No.	Description	1	10	25
175302	HD cooler (5.25")	$13.63	$12.95	$12.25

For our selection of fans, see pages 36-39



Back Panel PC Cooling Fan

- Type: sleeve axial fan
- Back panel mountable
- Operating volt.: 12VDC @ 140mA
- Airflow: 43 CFM
- Noise ratio: 26dBA
- Power: 1.7W
- 10.5" wire with 4-pin Molex power connector
- Size: 4.3"L x 3.5"H x 1.1"Thick
- One-year warranty



Part No.	Description	1	10	50
152240	PC cooler fan	$19.95	$17.95	$15.95

Thermoelectric Cooler with Heat Sink

- Heat or cool by changing direction of current
- Cools down 45˚F
- Max. heat sink operating temp: 100˚C
- Operating voltage: 13-15VDC @ 4A (nominal)
- Rated lifetime over 200,000 hrs.
- 18 (AWG) wire leads, 3.0" length
- **Removed from original equipment**
- Size: heat sink: 5.0"L x 4.0"W x 1.4"H; pump: 6.0"L x 4.8"W x 0.7"H
- Weight: 2.4 lbs.



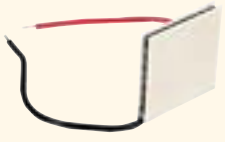
Part No.	Description	1	10
147942	Thermoelectric cooler	$29.95	$26.95

Thermoelectric Cooler Chips

- Cools down to -30˚C (dependent on external temperature)
- T max. = 60˚C
- 20 AWG wire leads, 4" long
- Heat or cool by changing direction of current
- Operating voltage: 15.4VDC nominal

* Couples: # of P&N type semiconductor pairs connected electrically in series

172048



Part Number	Mfr. Cross Ref. No.	Couples*	Watts	Voltage (max.) DC	Current (max.) A	Size (L" x W" x T")	Pricing 1	Pricing 10
172030	TEC30	71	19.7	8.4	4	1.2 x 1.2 x 0.2	$19.95	$17.95
172048	TEC40	127	35.6	15.4	4	1.6 x 1.6 x 0.2	25.95	22.95
172056	TEC50	127	79.1	15.4	8	2.0 x 2.0 x 0.2	45.95	41.49

See page 39 for Heat Sink Compounds

CPU Heat Sinks and Fans

See page 7 for CPU's



- Excellent for avoiding CPU overheating during extended system on-time
- High efficiency cooling fans • Easy installation – just snap it in * P/N 174115: 14" lead wires

Part No.	Description	Size (H" x W" x D")	Agency Approvals	1	10	50	100
151298	Heat sink w/ fan for slot 1 (SECC 1)	4.90 x 2.15 x 1.34	UL/CE/TUV	$10.95	$9.89	$8.89	$6.95
206244	Heat sink w/ dual fan slot (SECC 2)	5.25 x 1.95 x 1.3	CE	12.95	11.65	10.49	9.49
196242	Heat sink w/ fan for socket 7 (ATX)	2.26 x 2.12 x 1.07	UL/CE/TUV	9.95	8.95	7.95	6.95
181278	Heat sink w/ fan for socket 7 (ATX)	2.12 x 2.05 x 1.67	UL/CE/CSA	9.95	8.95	7.95	6.95
195784	Heat sink w/ fan for socket 7 (AT/ATX)	2.12 x 2.13 x 1.52	—	9.95	8.95	7.95	7.95
196074	Heat sink w/ fan for socket 7 (AT)	2.40 x 2.26 x 1.08	UL/CE/TUV	9.95	8.95	9.95	8.95
207044	Heat sink w/ fan for socket 370 (ATX)	2.48 x 2.00 x 1.32	UL/CUL/CE/TUV	14.95	13.49	11.95	10.75
190545	Heat sink w/ fan for socket 370	2.45 x 2.42 x 2.10	—	17.95	15.95	14.49	12.95
203115	Heat sink for Pentium® Pro– adhesive back	2.18 x 1.95 x 0.76	UL/CSA/TUV/CE	4.49	3.95	3.55	3.19
203123	Heat sink for Pentium® Pro– adhesive back	2.34 x 2.10 x 1.77	UL/CSA/TUV/CE	4.95	4.49	3.95	3.49
185607	Heat sink w/ fan for Pentium® Pro	2.75 x 2.84 x 1.75	UL/CE/TUV	14.95	13.49	11.95	10.75
118092	Heat sink w/ fan for 586 CPU w/ snap	2.18 x 2.30 x 1.00	UL/CE/TUV	4.95	3.69	2.59	3.49
129226	Heat sink for 486 CPU – adhesive back	1.70 x 1.63 x 0.36	—	2.95	2.36	1.77	1.25
129234	Heat sink for 486 CPU – adhesive back	1.70 x 1.64 x 0.66	—	3.95	3.55	3.19	2.79
191636	Heat sink w/ fan for 486 CPU w/ clip	1.85 x 1.92 x 0.72	UL/CE/TUV	5.49	4.95	4.19	4.19
174115	Heat sink w/ fan for 486 CPU w/ snap*	1.93 x 1.96 x 0.93	UL/CUL	3.95	3.55	2.95	2.65
67660	Heat sink w/ fan for 486 CPU w/ snap	1.93 x 1.96 x 0.93	UL/CSA/CE	5.95	5.35	4.79	4.29

USB Thumbdrives



What better way to keep your data safe than to keep it close to you? Thumbdrives are compact and fit easily in your pocket or hang it around your neck. Portable and lightweight, no external power needed. No drivers necessary for Windows® ME & above.



Fits right in your pocket

- 10 year data retention
- Size: 3.0"L x 1.0"W x 0.4"H

Includes: Windows® 98/98SE driver diskette, USB-A male to female cable, and neck strap

NEW

Part No.	Description	1	10
208522	16MB	$34.95	$33.20
208531	32MB	49.95	47.45
208549	64MB	69.95	66.45
208557	128MB	99.95	94.95
208565	512MB	399.95	379.95



See pages 142 & 143 for our complete line of USB products and accessories.

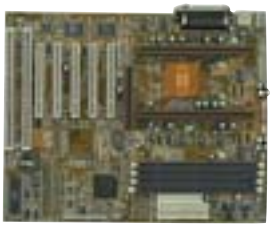
High-Performance Pentium® Class Motherboards

Dual processor design for data-intensive graphics and server operations

SALE



185682



185674



185666

Part No.	185682	185674	185666
Processor	Socket 370	Dual Slot 1	Dual Slot 1
Speed	366-533MHz	233-333MHz	233-333MHz
Chip set	i810M	440LX	440LX
BIOS	AMI	Award	Award
Memory	SDRAM (168-pin)	EDO (168-pin)	SDRAM (168-pin)
Capacity	512MB	1,024MB	512MB
Slots	2	4	4
Speed	66/100MHz	66MHz	66MHz
Slots			
PCI	3	5	5
AGP	Integrated	1	1
ISA	None	2	2
Interfaces			
Hard Drive	4 ATA-66	2 IDE, SCSI	4 EIDE
Floppy	2	2	2
USB	2	2	2
Parallel	1	1	1
Serial	2	2	2
IrDA	None	None	None
Sound	ES1373	None	None
Keyboard	PS/2	PS/2	PS/2
Video	4MB	None	None
Size	9.6" x 7.5"	12" x 9.6"	12" x 9.6"
Weight	1.5 lbs.	3.0 lbs.	3.0 lbs.
Qty 1	$59.95	$69.95	$39.99
Price 10	$53.95	$59.95	$35.99

Socket 370: Intel Celeron™ PPGA Package processor (see page 7) **Slot 1:** Intel Pentium® II processor (see page 7)

DIMM and SIMM Memory

148398



148443



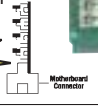
Part Number	Mfr. Cross Ref. No.	Pins	Description	1	10
148398	4MBX64SDRAM	168	4M x 64 10ns Syn. DRAM DIMM (32MB)	$16.95	$15.95
148401	8MBX64SDRAM	168	8M x 64 10ns Syn. DRAM DIMM (64MB)	32.95	29.95
148419	16MBX64SDRAM	168	16M x 64 10ns Syn. DRAM DIMM (128MB)	59.49	59.49
130729	JEEDO7208	72	2M x 32 60ns SIMM EDO module (8MB)	10.95	9.49
130711	JEEDO7216	72	4M x 32 60ns SIMM EDO module (16MB)	19.95	17.95
148443	JEEDO7232	72	8M x 32 60ns SIMM EDO module (32MB)	43.95	39.59
148451	JEED07264	72	16M x 32 60ns SIMM EDO module (64MB)	29.95	28.45
189413	256KX36-60	72	256k x 36 60ns SIMM module (1MB)	1.75	1.49
189430	256KX36-70	72	256k x 36 70ns SIMM module (1MB)	1.49	1.25
75133	P361000-XX-6	72	1M x 36 60ns SIMM module (4MB)	14.95	13.49
75096	P362000-XX-6	72	2M x 36 60ns SIMM module (8MB)	28.49	25.95
75184	P364000-XX-6	72	4M x 36 60ns SIMM module (16MB)	49.95	44.95
75168	P364000-XX-7	72	4M x 36 70ns SIMM module (16MB)	45.95	41.49
148460	8MBX36-60	72	8M x 36 60ns SIMM module (32MB)	87.95	79.19
41751	421000A9B-70	30	1M x 9 70ns SIMM module (3 chips)	3.95	3.45
53698	94000S-60	30	4M x 9 60ns SIMM module (9 chips)	17.95	15.95
53701	94000S-70	30	4M x 9 70ns SIMM module (9 chips)	11.95	10.95
148478	16MBX9-60	30	16M x 9 60ns SIMM module (9 chips)	29.95	28.45

SIMM to SIMM Card

- Converts four 30-pin SIMMs to one 72-pin SIMM
- Memory size and speed must match
- Easy-release locking clips

SALE





Part Number	Mfr. Cross Ref. No.	Description	1	10
157500	30/72A	Four 30-pin SIMMs to 72-pin SIMM	$5.75	$5.25

16-Bit Active-Slot PC Extension Interface

Gives you three additional expansion slots.

- Compatible with 8 or 16-bit ISA cards
- Supports: MONO/EGA/ VGA/FDC/HDC, game, and most I/O
- Control card installs inside your PC with four external slots
- Two mounting brackets to interface the unit via 37 and 62-pin cables
- Isolates system providing short circuit protection
- Can insert and remove cards while power is on
- Can be powered off the PC or externally using 6-pin connection (P/Ns 78318 and 78326, pg 125)
- Size: 9.5"L x 6.8"W x 1.0"H • Weight: 5.5 lbs. • One-year warranty



System requirements: IBM PC/XT and higher compatible

Part No.	Description	1	10
131238	16-bit active-slot PC extension interface	$279.95	$251.95

Pentium II Class Motherboards

ATX Motherboards are compatible with Intel Pentium® II processors.

SALE



188082



188091



185367



188074



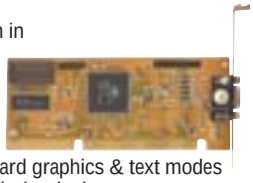
185359

Part No.		188082	188091	185367	188074	185359
Processor		Slot 1*	Slot 1*	Slot 1	Slot 1*	Slot 1
Speed		233-333 MHz	233-333 MHz	233-333 MHz	233-266 MHz	233-333 MHz
Chip set		440LX	440LX	440LX	440LX	440EX
BIOS		Award	Award	Award	Award	Award
Memory		SIMM (72 pin)	EDO (168 pin)	EDO (168 pin)	EDO (72 pin)	SDRAM (168 pin)
Capacity		384MB	768MB	384MB	384MB	256MB
Slots		6	3	3	6	2
Speed		66 MHz	66 MHz	66 MHz	66 MHz	66 MHz
Slots						
PCI		5	4	4	5	2
AGP		None	1	1	1	1
ISA		3	3	3	3	2
Interfaces						
Hard Drive		4 EIDE	4 EIDE	4 EIDE	4 EIDE	4 EIDE
Floppy		2	2	2	2	2
USB		2	2	2	2	2
Parallel		1	1	1	1	1
Serial		2	2	2	2	2
IrDA		None	None	None	1	None
Sound		CS4237B	None	None	None	ESS
Keyboard		PS/2	PS/2	PS/2	PS/2	PS/2
Video		None	None	None	None	None
Size		12" x 9.6"	12" x 7.5"	12" x 7.4"	12" x 9.6"	9" x 7.8"
Weight		2.6 lbs.	2.5 lbs.	2.5 lbs.	2.6 lbs.	1.9 lbs.
Price	1	**$24.95**	**$39.95**	**$34.95**	**$19.99**	**$35.95**
	10	**$22.49**	**$34.95**	**$31.49**	**$17.99**	**$32.49**

* Also supports the Intel Celeron™ processor

ISA 16-Bit Super VGA Card

512KB on Board



- 1024 x 768 resolution in non-interlaced and interlaced modes
- Supports 16 colors; requires 1MB video RAM
- Supports VESA standard graphics & text modes
- Output HDDB15 female (analog)
- Emulates VGA, EGA, CGA, MDA & Hercules modes
- One-year warranty

Requirements: IBM AT and higher compatibles

Includes: 512kB video RAM, expandable to 1MB by adding one P/N 128688 chips, pg 8; software and manual

Part No.	Description	1	10	25
104660	VGA card	**$49.95**	**$44.95**	**$39.95**

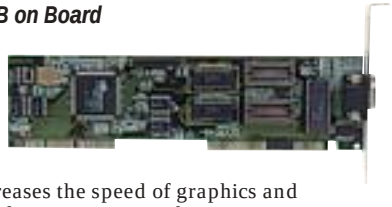
We'll match the advertised price of any like product.

Jameco's Low-Price Guarantee

It's that simple!

VESA 24-Bit Graphics Accelerator Card

1MB on Board



Increases the speed of graphics and windowing programs by up to 15 times that of standard VGA.

SALE

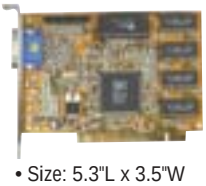
- Provides 24-bit true color at 640 x 480 pixels, 16M colors
- Connector: HDDB15 female
- On board memory: 1MB, expandable to 2MB using 256k x 16 DRAM P/N 128688, pg 8
- Non-interlaced/interlaced modes supported
- Weight: 0.7 lbs.
- One-year warranty

Requirements: Intel® 486 & higher compatibles

Part No.	Description	1	10
137285	Graphics accelerator	**$35.95**	**$32.35**

PCI 24-Bit SVGA Graphics Card

4MB on Board



- SIS 6326 AGP chipset
- Best support for DVD and MPEG-II playback
- 24-bit color @ 800 x 600 resolution
- Refresh rate: 60-75Hz
- HDDB15 female connector
- Size: 5.3"L x 3.5"W

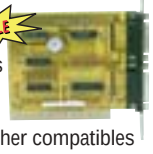
Requirements: Windows® 3.x/95/98/NT4.0

Includes: Manual and CD-ROM drivers

Part No.	Description	1	10
167476	PCI accelerator card	**$39.95**	**$35.95**

ISA Dual-Port Game Card

SALE



- Enables two people to play a game at the same time
- Uses standard IBM type joysticks
- Two game ports
- One-year warranty

Requirements: IBM PC/XT and higher compatibles

Part No.	Description	1	10	25
105515	Game card	**$6.89**	**$6.19**	**$5.59**

Part Number Color Code: New Sale Refurbished Closeout

QTRONIX Win 95 104-Key Keyboard with Jumbo Trackball



- PC/AT and PS/2 compatible w/ DOS 3.0 or higher
- "N-Key" roll-over for quick typists
- Tactile click sound and feel • Weight: 3.7 lbs.
- Size: 19.0"L x 6.8"W x 1.4"H • One-year warranty

Includes: Software and AT cable adapter

Part No.	Description	1	10	25
128717	Scorpius 35PM/NET	$99.95	$90.95	$84.95

QTRONIX 108-Key Compact Keyboard



- IBM PC PS/2 or higher compatible
- Use adapter P/N 85500, pg 145 for AT systems
- LED indicator for Num, Caps, and Scroll Lock
- Supports Windows® 98 ACPI keys (wake-up, sleep, power) • 12 function keys
- High quality rubber mechanical key switches
- Size: 15.5"L x 6.5"W x 1.1"H • Weight: 1.9 lbs.

Part No.	Description	1	10	25
180347	Scorpius 2KP	$39.95	$35.95	$32.49

COMPAQ 101-Key Keyboard



SALE

- For PS/2 systems • Tactile touch
- LED indicators for Num, Caps, and Scroll lock
- 12 function keys with separate cursor and numeric keys
- Recommend using adapter P/N 85500, pg 145 or P/N 159089, pg 146
- Size: 18.3"L x 6.5"W x 1.3"H • Weight: 3.6 lbs.

Part No.	Description	1	10	25
191530	101-Key Keyboard	$19.95	$14.95	$10.95

117-Key Multimedia Keyboard



SALE

- For PS/2 systems
- Use adapter P/N 85500, pg 145 for AT systems
- LED indicators for Num, Caps, and Scroll locks
- ± volume buttons, mute button, forward / reverse/play/stop button for multimedia, WWW button, MS DOS button, My Doc button, Menu/? button, screen saver button, close button
- 12 function keys w/ separate cursor & numeric keys
- Size: 18.5"L x 7.0"W x 1.8"H • Weight: 3.6 lbs.

Includes: 3.5" drivers and keyboard labels for buttons

Part No.	Description	1	10	25
174334	Multimedia KB	$8.99	$8.19	$7.25

QTRONIX Win 98 107-Key USB Keyboard with PS/2 Port

SALE



- IBM PC with USB-A port or higher compatible
- Windows® 95/98 compatible
- ACPI keys (wake-up, sleep, and power) for Windows® 98 • Adjustable tilt mechanism
- Detachable ergonomic wrist wrest
- Tactile key stroke – high quality rubber mechanical switches • 20,000,000 life cycles per switch
- PS/2 mouse port at back of keyboard
- Size: 18.7"L x 6.7"W x 1.0"H • Weight: 2.3 lbs.

Part No.	Description	1	10	25
189317	Scorpius 980+	$25.49	$22.95	$20.65

QTRONIX Win 95/98 107-Key PS/2 Red or Blue Keyboards



195813

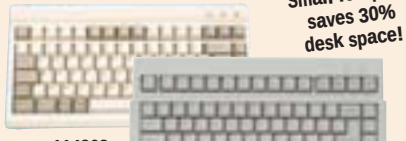
- Tactile key stroke with high quality rubber mechanical switch • Adjustable tilt mechanism
- 20,000,000 life cycles per switch
- IBM PS/2 and higher compatible
- Designed for Windows® 98 with ACPI keys (wake, sleep, and power) • Windows® 95 compatible
- Opaque red or blue top cover & clear bottom cover
- Use adapter P/N 85500, pg 145 for AT systems
- Size: 18.6"L x 6.5"W x 1.1"H • Weight: 2.0 lbs.

Part No.	Product No.	1	10
195821	Scorpius 98A Red	$12.95	$11.95
195813	Scorpius 98A Blue	12.95	11.95

83-Key & 84-Key Mini Keyboards

Full featured AT & PS/2 mini keyboards save valuable desktop space.

Small footprint saves 30% desk space!



114868

199718



Standard Keyboard

- Adjustable tilt mechanism • Tactile key stroke
- LED indicators for Num, Caps, and Scroll lock

199718: 83-key keyboard

- For PS/2 systems • Auto repeat • N-key rollover
- Size: 12.8"L x 6.2"W x 1.0"H • Weight: 1.9 lbs.

114868: 84-key keyboard

- For AT systems, designed for Windows® 95
- Size: 12.8"L x 6.6"W x 1.0"H • Weight: 2.4 lbs.

Part No.	Description	1	10	25
199718	83-key PS/2	$49.95	$44.95	$38.95
114868	84-key AT	51.95	45.95	39.95

Sun Win 95 104-Key Keyboard



- For PS/2 systems
- Unmarked window keys
- LED indicators for Num, Caps and Scroll Locks
- 12 Function keys w/ separate arrow & numeric keys
- Tactile feedback • Tilt mechanism
- Size: 18.2"L x 7.0"W x 1.5"H
- Weight: 2.7 lbs.

Part No.	Description	1	10	25
173649	104-key keyboard	$12.95	$11.49	$9.95

Win 95 104-Key Keyboard

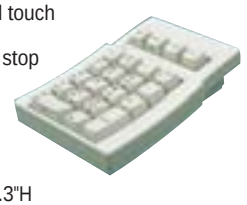


- IBM PS/2 and higher compatibles
- LED indicator for Num, Caps and Scroll Locks
- Tilt mechanism • Ergonomic style
- 12 function keys • Tactile key
- Use adapter P/N 85500, pg 145 for AT systems
- Size: 18.5"L x 7.0"W x 1.0"H
- Weight: 2.7 lbs.

SALE

Part No.	Description	1	10	25
135482	104-key keyboard	$10.95	$9.95	$7.95

QTRONIX 22-Key Serial Keypad



- Tactile click-sound and touch
- Auto repeat function
- 9600 bps, data bits: 8, stop bits: 1, start bit: none, no parity
- Serial DB9 connector
- 2-key rollover
- Color: beige
- Size: 6.2"L x 4.2"W x 1.3"H
- Weight: 0.8 lbs.
- One-year warranty

System requirements: IBM PC/XT or higher compatibles; and MS DOS 3.X

Includes: 3.5" driver diskette and manual

Part No.	Description	1	10	25
129357	Scorpius 22RW	$39.95	$35.95	$32.49

QTRONIX 17-Key PS/2 Keypad

A compact keypad designed for use with IBM compatible laptops and desktop PC.



- Auto-repeat function
- Tactile click-sound and touch
- Switch life of 20 million cycles
- For IBM PS/2 and compatibles
- Installs into 6-pin mini DIN keyboard connector (no software required)
- Two key roll over
- Size: 5.6"L x 3.4"W x 0.9"D
- One-year warranty

Part No.	Description	1	10	25
151811	Scorpius 20PB	$34.95	$31.49	$27.95

Basic PS/2 2-Button Mouse

- Compatible with all major application software
- PS/2 connector (6-pin mini DIN)
- Size: 4.4"L x 2.5"W x 1.4"H



System requirements: IBM PC/XT/AT/PS/2 or compatible systems; Windows® 3.1/95

Includes: 3.5" drivers

SALE

Part No.	Description	1	10	100
174326	PS/2 mouse	$7.95	$6.95	$6.25

Fast-Tracking PS/2 2-Button Mouse

- Opto-mechanical encoder
- Compatible with all major application software
- Dynamic resolution and fast tracking speed
- PS/2 connector (6-pin mini DIN)
- Compatible with IBM PC/XT/AT 386/486
- Size: 4.2"L x 2.3"W x 1.2"H



SALE

Includes: Set up diskette

Part No.	Description	1	10	50	100
159513	PS/2 mouse	$9.95	$8.95	$7.95	$6.25

External Zip Drive NiMH Battery Pack

- Powers your external zip drive for up to 3 hours
- 6V @ 1A-h
- Built-in charging; plugs directly to wall outlet (2-prong plug)
- Size: 4.5"L x 3.4"W x 1.0"H



SALE

Part No.	Description	1	10
190166	External battery pack	$21.99	$19.79

PS/2 3-Button Optical Wheel Mouse

- Ergonomic style 3-button optical wheel mouse
- High tech optical sensor for all surface types
- Size: 3.9"L x 2.3"W x 1.5"H
- Weight: 0.2 lbs.



System requirements: IBM PC or compatible, Windows® 98/2000/ME, available PS/2 port

Part No.	Description	1	10	25
199591	Optical wheel	$29.95	$26.95	$24.25

PS/2 3-Button Mouse

- Compatible with IBM PC/XT/AT systems
- Compatible with major applications
- Male PS/2 connector (6-pin mini DIN)
- Size: 4.2"L x 1.2"H x 2.5"W



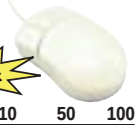
SALE

System requirements: Windows® 95/98/2000/NT

Part No.	Description	1	10	25	100
166748	PS/2 mouse	$5.49	$4.95	$4.49	$3.95

3-Button Serial Mouse

- Microsoft® mouse compatible
- IBM PC/XT and higher compatibles
- Size: 4.3"L x 2.3"W x 1.2"H

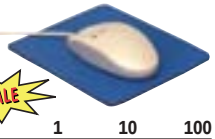


SALE

Part No.	Description	1	10	50	100
104441	Serial mouse	$4.95	$4.49	$3.95	$3.25

Mini Mouse Pad

- Tough non-skid neoprene backing
- Smooth-gliding cloth surface on top
- Size: 7.0"L x 5.5"W



SALE

Part No.	Description	1	10	100
121363	Mini mouse pad	$2.95	$2.19	$1.49

Trackman Marble FX™

- Ergonomically designed with large ball for easy precise control
- Marble sensing technology for smooth motion
- Drivers for one-click scrolling and zooming in Office 97
- Male PS/2 connector (6-pin mini DIN)
- Size: 7.2"L x 3.0"W x 3.0"H • Weight: 1.5 lbs.



System requirements: IBM or compatible systems; Windows® 95 and higher; available serial or PS/2 port

Includes: 3.5" disk drivers, PS/2 to serial adapter and manual

SALE

Part No.	Description	1	10
189827	Trackman marble FX	$49.95	$35.95

Trackball with Menu Software

- Over 24 software menus to ease use
- Variable resolution (20-6400 dpi)
- Convenient button lock for dragging & drawing
- Ergonomic design
- 3.5" disk • One-year warranty
- Size: 5.5"L x 4.6"W x 2.0"H
- Weight: 1.2 lbs.



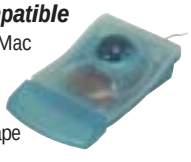
System requirements: IBM PC/XT or compatible systems; MS DOS 3.3 or later, Windows® 95

Part No.	Description	1	10	25
128995	LIBRA 90 MP PRO	$29.95	$26.95	$24.25

USB Trackball

Apple® MAC & IBM PC Compatible

- Designed to work with Apple Mac (OS 8.1 or above) and IBM PC (Windows® 98, 2000 or better)
- Large buttons & ergonomic shape
- Removable retaining ring for easy ball removal and roller cleaning
- USB-A male connector
- Tactile micro switches for highly reliable tactile sound and feeling • Detachable wrist rest
- 1,000,000 life cycles per switch
- Color: Clear opaque top with blue opaque bottom
- Size: 5.7"L x 4.7"W x 1.8"H • Weight: 1.0 lb.



Part No.	Description	1	10	25
196091	Libra 90i trackball	$19.95	$17.95	$15.95

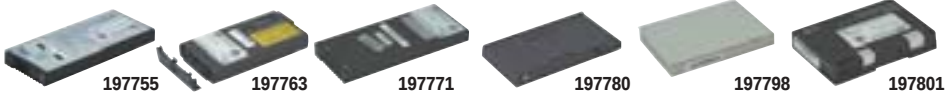
See the yellow highlighted items.

Special Jameco Values!

Details on Page 5

See pages 58 & 59 for Laptop Power Supplies

Laptop Batteries



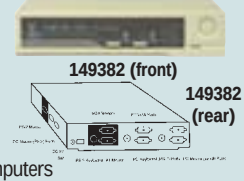
197755 197763 197771 197780 197798 197801

There is nothing worse than having a dead battery while finishing up your presentation on a trip, a spreadsheet for your boss, or finalizing your paper for school. The life of a portable computer is at the mercy of your battery. Get a spare or change that old battery that's nearing the end of its life.

Part Number	Mfr. Cross Ref. No.	Compatibility	Voltage	1	5
197755	LTO0124H	Satellite 100/110/115/T2100/T2155 series (NiMH)	12V@2500mAH	$108.95	$98.49
197763	LCO0114L	Presario 1200/1600/1800 series (Li-ION)	14.4V@5400mAH	198.95	179.49
197771	LTO0102L	Satellite 300/400/1555/2060/4000 series (Li-ION)	10.8V@3600mAH	198.95	179.49
197780	LDE0215L	Latitude CP/CPI/CPX & Inspiron 3700/3800/6000/8000 series (Li-ION)	14.4V@2700mAH	208.95	188.49
197798	L0127HX	T1900/T2400/T4700/T4800/T4900 series (NiMH)	12V@3500mAH	118.95	107.49
197801	LIB0129H	ThinkPad 380/380D/380XD/385/385D series (NiMH)	8.4V@3500mAH	118.95	107.49

K/V/M Switch Boxes for up to 4 Computers

- Selects any computer by hot keys or switch
- Serial mouse, PS/2 mouse & keyboard emulation for automatic PC boot up
- Three stage cascadable for accessing more computers
- Supports SVGA, VGA and Multisync monitors
- Keyboard LED status recorded and restored while switching among computers
- Auto scan for monitoring PC periodically
- One-year warranty
- Size (149382): 9.0"L x 6.0"W x 2.0"H
  (149391): 10.0"L x 7.0"W x 3.0"H



149382 (front)

149382 (rear)

Includes: Manual & power supply (9VDC @ 600mA)

Part No.	Description	Wt. (lbs.)	1	10
149382	2 computers	4.0	$149.95	$129.95
149391	4 computers	7.1	229.95	209.95

Part Number Color Code
New Sale Refurbished Closeout

Audio/Video Adapters (CAT 5 UTP)


195750

- Designed to convert impedance of video/audio signals to 100Ω for transmission over CAT 5 UTP cable
- Supports both NTSC or PAL video signals
- Built-in impedance matching device and filter for video and audio signal transmission
- Use with existing premises wiring and wall jacks for easy and cost effective installation
- Transmission distance: 1000' color video, 2000' for B/W video

195750:
- Signal pair: video (BNC), CAT pair 1 (RJ45)

Includes: RJ45 to wire terminal block adapter

155002:
- Signal pairs: video (BNC), CAT pair 4 (RJ45); audio 1 (RCA), CAT pair 3 (RJ45); audio 2 (RCA), CAT pair 2 (RJ45)

Includes: 1 RCA to BNC adapter & 2 mounting screws

Part No.	Connector Type	1	10
195750	BNC/RJ45	$29.95	$26.95
155002	BNC/RCA/RJ45	42.95	38.95

AverKey *Pro* PC to TV Converter Box



- Converts VGA video or Macintosh® 640 x 480 to standard NTSC
- Built-in flicker filter
- Resolution: 800 x 600
- TV brightness control
- Compatible w/ Microsoft® Windows® 3.0 and higher
- Two-year warranty
- Size: 6.0"L x 4.0"W x 1.0"H • Weight: 2.2 lbs.

System requirements: VGA-based PC, DOS 3.0 or higher, 640kB RAM or larger

Includes: Compact PC to video converter box, transformer, utilities diskette, cables and manual

Part No.	Description	1	10
167193	Video signal pro	$109.95	$99.95

SMK RF Modulator



- Output frequency: NTSC Ch. 3/4, switch selectable
- 12VDC RF modulator
- Operating voltage: 12V@ 50mA max.
- RF output impedance: 75Ω (F-type connector)
- Video modulation: 1.0V p-p
- Audio FM deviation: 1.4V p-p
- PC connections: solder tab connectors
- Size: 1.7"L x 1.7"W x 0.7"H • MFG. #: WMN2144-01

Part No.	Description	1	10	50	100
141639	RF modulator	$4.95	$3.95	$2.95	$2.10



Phone 1-800-831-4242
Online www.Jameco.com
Order Anytime 24x7x365
Fax 1-800-237-6948

15-Watt Multimedia Amplified Speakers



- 2 speakers • Headset jack
- Volume controls
- Size: 2.9"W x 4.7"D x 7.2"H
- Weight: 2.7 lbs.

Includes: 9VDC class 2 transformer

Part No.	Description	1	10	25
140020	15W speakers	$12.95	$11.49	$9.95

480-Watt Multimedia Amplified Speakers



- Input voltage: 120VAC
- 2 speakers
- Magnetically shielded
- 2-channel stereo amplifier
- Push button type power switch with LED indicator
- Knob controls for volume, bass & treble
- Size: 5.5"W x 7.0"D x 9.1"H • Weight: 5.3 lbs.

Part No.	Description	1	10
196066	480W speakers	$39.95	$35.95

4-Watt Amplified Stereo Speakers

Fits 5.25" Drive Bay

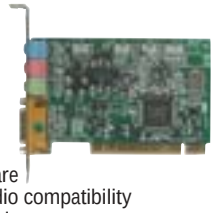


- 8Ω speakers with frequency response of 250Hz to 20kHz @ 83dB
- Compatible with all sound boards, CD-ROMs, CD digital audio players and MPC systems
- Size: 5.8"W x 7.5"D x 1.7"H • Weight: 1.4 lbs.

Part No.	Description	1	10
153541	Self-amplified speakers	$45.45	$43.09

PCI Sound with Wavetable

YMF724F-V Chipset



- PCI 2.1, PC '97/98 & PCI bus power management rev. 1.0 compliant
- PCI bus master for PCI Audio: true full duplex playback & capture; direct sound/direct music hardware acceleration • Legacy audio compatibility
- Supports Yamaha AC-3 device
- Input jacks for line-in/microphone/audio output; 15-pin port for joystick • Size: 5.0"L x 3.4"W

System requirements: Pentium® 100MHz or faster; 16MB of RAM; available PCI slot; Windows® 95; 15MB hard disk space; CD-ROM drive

Part No.	Description	1	10
199611	PCI sound card	$24.95	$22.45

5.6" Color Active Matrix LCD Monitor

NTSC Format



- TFT (active matrix) color LCD display
- 75,000 pixel display resolution
- Video input: 1.0Vp-p; 75Ω
- Audio input: 2Vp-p; 2kΩ
- For complete specifications see page 162

Part No.	Description	1	10
196381	5.6" TFT color monitor	$279.95	$259.95

Headset with Microphone



- Color: black
- 3.5mm male jack connector

Headphones:
- Frequency range: 20Hz to 18kHz
- Impedance: 320W
- Max. power input: 100Ω
- Sensitivity: 96dB @ 1kHz

Microphone:
- Frequency range: 50Hz to 12.5kHz
- Output impedance: <2kΩ • Sensitivity: 58dB

Part No.	Description	1	10	25
190588	Headphones w/ mic.	$4.29	$3.75	$3.29

Omni-Directional Microphone Headset



- Frequency range: 20Hz to 20kHz (headset); 50Hz to 16kHz (microphone)
- Impedance: 32Ω
- Maximum power: 100mW
- Sensitivity: 98dB (headset); -62dB (microphone)
- Swivel microphone arm pivot
- Flexible microphone arm
- 6' cord • Two 1/8" phone jacks

Part No.	Description	1	10	25
153875	Microphone headset	$10.95	$9.95	$8.95

Telephone Headset

A condenser microphone with adjustable gooseneck boom. Swinging earpiece allows headset to be worn on either ear.



- Connector: 3.5mm male stereo plug
- Gooseneck length: 4.9"
- Compatible with Motorola cell phones
- Cord length: 4'3" • Color: beige

Part No.	Description	1	10	25
189923	Telephone headset	$3.86	$3.47	$3.12

In-Ear Stereo Headphones



- 3.5mm input jack connector
- Typical application: CD player
- Color: gray • 4' Long

Part No.	Description	1	10	100	1000
191880	Headphones	$1.95	$1.59	$1.19	$.79

Desktop Microphone



- Connector: 3.5mm male stereo plug
- Neck length: 17.5"
- Cord length: 5.5'
- One-year warranty

Part No.	Description	1	10	25
129963	Desktop microphone	$4.22	$3.80	$3.42

Hands-Free Condenser Microphone



- Cord length: 8'
- Connector: 3.5mm male stereo plug
- Size: 1.9"L x 1.2"W x 0.3"H
- One-year warranty

Part No.	Description	1	10	50
135247	Microphone	$3.69	$3.29	$2.99

Video Capture PCI Card with Camera



- Plug & Play PCI specification version 2.1 compliant
- CIF (common interlace format) for image capturing
- True motion codec (compression & decompression)
- Video conferencing, video messaging, editing and manipulation software suite
- NTSC/PAL/SECAM composite video capture at a full 640 x 480 resolution with 24-bit color depth
- Capture and compress video at rates of 30 frames per second
- Size: 4.8"L x 2.2"W • Weight: 0.8 lbs.

System requirements: Windows® 95 or better; Pentium® 133MHz or better; 16MB of RAM; 46MB hard disk space, 4X CD-ROM; PCI video board with 2MB of memory; 640 x 480 display with 8-bit color depth; available PCI slot.

Includes: Manual on CD-ROM, CD-ROM drivers, and camera

Part No.	Description	1	10	25
180110	Video capture card	$56.55	$50.89	$45.80

Video Capture PCI Card



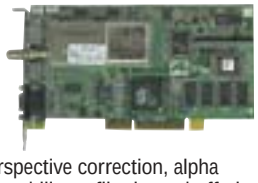
- Plug & Play
- Supports RGB 32, 24, 15 formats
- AVI compatible
- Supports video conferencing applications
- Size: 4.8"L x 22"W
- One-year warranty

System requirements: Pentium® 100MHz or higher; available PCI slot; Windows® 95/98; VGA card with DirectDraw support

Includes: Manual and CD-ROM drivers

Part No.	Description	1	10	25
172793	Video capture card	$44.95	$39.95	$36.95

AGP TV/Video Capture Card "All-In-Wonder PRO"



- On-board 8MB synchronous RAM display buffer
- Separate horizontal and vertical sync
- 3D RAGE accelerator chip supports gouraud shading, perspective correction, alpha blending, Mip mapping, bilinear filtering, z-buffering 3D triangle set-up engine and dbx TB audio
- Turns your PC into an intelligent TV with zoom-in, schedule viewing, channel scanning, video capture, closed captioning, program transcript recording, instant replay functions
- Input/output connectors: HDDB15 female connector for monitor; 8-pin mini DIN connector for audio/video input and output; cable TV jack

System requirements: Pentium® or higher compatible; AGP slot; Windows® 95 or 98; VGA monitor with minimum 640 x 480 resolution

Includes: CD-ROM drivers; 3 A/V in & out cables

Part No.	Description	1	10
196963	TV/video capture card ...	$149.95	$134.95

QuickCam Video Camera

QuickCam lets you send video images and photos over the internet as easily as you now send text.



- Focus range: 1" to infinity
- 3.6mm lens with F2.0
- 46˚ field of view
- 24-bit color
- Image resolution: 352 x 288 pixels
- Supports BMP, TIFF, JPEG file formats
- TWAIN compliant to acquire and edit still images
- Captures 30 frames per second, audio and video capturing supported
- Supports AVI, RM file formats
- Parallel port interface (DB25 male connector)
- Size: (camera) 2.3" diameter • Weight: 1.0 lb.

System requirements: Pentium® 100MHz processor, 16MB of RAM, 10MB hard disk space for applications, CD-ROM, Sound Blaster compatible sound card, Windows® 95/98

Includes: Manual, 5-pin DIN to PS/2 adapter and CD-ROM drivers

Part No.	Description	1	10
191759	QuickCam	$39.95	$35.95

USB WEBCAM Video Camera

With Motion Detection Software



- Create video images and send via email
- Capture still photos using motion detection software
- USB-A male interface
- Compatible with Windows® 98/ME/2000
- CMOS sensor • Manual focus lens
- Image resolution: 352 x 288 pixels
- Frame rate: up to 30 frames per second
- Size: 2.3" diameter • Weight: 1.0 lb.

System requirements: IBM PC with Pentium® 233MHz or higher compatible, Windows® 98/ME/2000, CD-ROM, available USB port

Includes: Mounting base, installation guide, CD-ROM drivers and software

Part No.	Description	1	10
191775	USB WEBCAM	$24.95	$22.45

USB PenCam Digital Camera

Still and Streaming Video Capable



- USB Interface
- Compatible with Windows® 98/ 2000 and ME
- High resolution 352 x 288 (20 still shots)
- Low resolution 176 x 144 (80 still shots)
- Up to 12 seconds of AVI streaming video
- Up to 2-hour battery life (full-time usage)
- 10-second self timer
- Size: 4.8"L x 1.3"W x 0.8"D
- One-year warranty

Requires: 2 AAA batteries not included (recommend P/N 185279, pg 168)

Includes: CD-ROM software bundle with Pocket Cam Manager, Photo Express 3.0, Photo Explorer 3.0, COOL 360 1.0, Video Live Mail Plus 3.11b, and Microsoft Net Meeting 5.0; 5' USB cable; camera stand and camera clip

Part No.	Description	1	10
177199	Digital PenCam	$62.95	$56.65

USB Color Video Camera



- Plug & Play compatible
- Sensor: 1/3" CMOS
- 640 (H) x 480 (V) pixels
- Minimum illumination: less than 15 lux
- Integrated lens: F2.0
- Resolution and output performance: VGA (640 x 480) up to 10 frames per second
- Camera controls: frame rate/image resolution, contrast, brightness, backlight compensation, white balance, exposure control
- Size: 3.6"L x 2.1"W x 2.0"H
- Weight: 0.4 lbs.

System requirements: Pentium® 166MHz, 16MB of RAM, Windows® 98, USB port

Includes: CD-ROM drivers

Part No.	Description	1	10
204134	USB color video camera ..	$39.95	$35.95

15" SVGA Color Monitor



- 0.28mm dot pitch
- Resolution: 1280 x 1024 @ 60Hz
- Digital panel control
- Input voltage: 100-240VAC, 50/60Hz (auto switching)
- Power, contrast, brightness, horizontal and vertical size position, recall and trapezoid front control
- HDDB15 male connector
- UL/CSA/TUV approved
- Size: 14.5"W x 16"D x 14.6"H
- Wt.: 45 lbs.
- Refurbished (mfr. may vary)

Requirements: IBM PC/XT or higher compatibles

Includes: Power cable, tilt and swivel base

Part No.	Description	1	10
153306	13.5" diagonal view	$99.95	$89.95

14" SVGA Color Monitor



- 13" diagonal view
- 0.28mm dot pitch
- HDDB15 male connector
- Power, contrast, brightness, horizontal and vertical position, recall and trapezoid knob adjustments
- Resolution: 1280 x 1024 @ 60Hz
- Input voltage: 100-240VAC @ 50-60Hz
- Size: 14.2"W x 14.6"D x 13.5"H
- Weight: 25 lbs.
- Refurbished (mfr. may vary)

Requirements: IBM PC/XT or higher compatible

Includes: Power cable, tilt and swivel base

Part No.	Description	1	10
174537	13" diagonal view	$69.99	$64.99

30-Day Money-Back Guarantee

If you're not satisfied we'll take it back!

Details on page 181

5.6" Color TFT Monitor

NTSC Format



- TFTcolor LCD display
- 75,000 pixel display resolution
- Built-in 1 watt speaker
- Brightness and color adjustments
- Video input: 1.0Vp-p; 75Ω
- Audio input: 2Vp-p; 2kΩ
- Size: 6.9"W x 5.4"H x 1.0"D • Weight: 1.9 lbs.

Requires: 12VDC regulated power supply, not included (recommend P/N 162996, pg 61)

Includes: RCA cable and mounting stand w/hardware

Part No.	Description	1	10
196381	5.6" TFT color monitor ...	$279.95	$259.95

4" TFT LCD Monitor

NTSC Format



- TFT color LCD
- Resolution 234 x 383 dpi
- Backlight: cold cathode fluorescent lamp
- Power source: 12VDC @ 400mA
- 5" long lead wire with 4 position molex type power connector
- Tint color and brightness adjustable
- Size: 4.1"L x 3.3"W x 0.7"H (display)
- Size: 4.7"L x 3.3"W x 1.3"H (unit) • Weight: 0.7 lbs.

Part No.	Description	1	10
172742	4" color LCD monitor	$159.95	$149.95

10" Black & White Security Monitor with Audio



- EIA format
- 9" viewable screen
- Resolution: 700 line
- LED indicator for power
- Push down front panel for vertical hold and size, brightness, volume, and contrast adjustments, power on/off switch
- Horizontal frequency, focus and sub-brightness adjustment, impedance input switch, 1 BNC female & 1 RCA jack for audio/video input/output
- Input voltage: 120VAC @ 60Hz (2-prong 5' cable)
- Size: 9.3"W x 12"D x 9.1"H
- Weight: 15 lbs.

Includes: Manual

Part No.	Description	1	10
192719	10" black & white monitor	$119.95	$107.95

Video Text Display Module

NTSC composite (1Vp-p, 75Ω)



- Serial data input: 2400-19.2kbps
- 30-pin SIMM form factor (socket supplied)
- Compatible w/ Parallax Basic Stamp®, see pg 169
- Auto-switching genlock overlay or internal video generation
- Power supply: +8-16VDC @ 65mA input, 5VDC aux. output (regulated)
- Displays up to 308 characters (11 lines of 28)
- 12 x 18 pixel character pattern
- Size: 3.5"L x 1.1"H
- Asynchronous serial input only @ 9600bps

Part No.	Mfr. Cross Ref. No.	1	10	25
162051	BOBII	$79.95	$71.95	$63.95

SONY® Low-Light Color Camera

Sony Chipset



- 1/3" Sony super HAD CCD image sensor
- NTSC system with 510(H) x 492(V)
- 380 horizontal TV lines
- 0.2 lux/F2.0 • FOV: 92.6˚
- Lens: 3.6mm
- Signal to noise ratio: >48dB
- Auto electronic shutter speed: 1/60 to 1/100,000 sec.
- Video output: 1V p-p composite video/75Ω
- Size: 1.9"L x 1.9"W x 1.0"H
- One-year warranty

Requires: 12V @ 220mA center positive power supply (not included, P/N 162996, pg 61)

Includes: Mounting hardware

Part No.	Description	1	10
153867	Enclosed color camera	$199.95	$179.95

SONY® Black & White Low-Light Camera

Sony Chipset



150931

- Lens: 3.6mm
- Signal to noise ratio: >48dB
- Requires 12V power source (not included)
- 6" wires with 4-pin Molex-type keyed connector
- EIA system 537(H) x 505(V)
- Composite output with 420 line resolution
- Shutter speed: 1/60 - 1/1000 • FOV: 92.6˚
- Video output: 1.0Vpp composite video/75Ω
- Size: 1.3"L x 1.3"W x 1.0"H
- One-year warranty

Part No.	Description	1	10	25
150931	Camera board	$89.95	$80.95	$71.95
159071	8mm lens 38.6˚	24.95	22.45	20.25

Ultrasonic Motion Detector Kit

49-piece kit



Detect Motion / movement from 13 to 23 ft. away and trigger an alarm with this kit.

- Intermediate level
- 2 boards: one with matched pair of ultrasonic transducers to detect motion from 13 to 23 ft. away; 2nd board contains crystal controlled oscillator and all circuits
- Switchable latch, red LED indicator
- Solder pad output to drive external relay or circuits
- Size: main board: 2.8"L x 2.0"W x 0.8"H; transducer board: 2.8"L x 0.6"W x 0.9"H

Requires: 9V battery (recommend P/N 151095, pg 168)

Part No.	Description	1	10
125090	Ultrasonic alarm kit	$29.95	$26.95

Over 99% of our products are in stock!

We'll Send It Today!

Just place your order by 6PM EST for same business day shipment

Color Camera Board

NTSC Format



- 1/3" CCD image sensor
- 330 TV lines
- 5.0 lux • FOV: 92˚
- 3.6mm lens/F2.0
- Low power consumption
- Automatic exposure, gain and white balance
- Size: 1.0"L x 0.9"W x 1.1"H

Part No.	Description	1	10
171011	Camera board	$59.95	$53.95

Mini Enclosed Color NTSC Camera



- 1/4" CCD image sensor
- NTSC system with 512(H) x 492(V)
- 330 horizontal TV lines
- 2 Lux/F2.0 • FOV: 106˚
- Electronic shutter: NTSC – 1/60 to 1/96,000 sec.
- Lens: 3.6mm/F2.0 • Signal to noise ratio: 46dB
- Scanning system: 2:1 interlace
- Video output: 1V p-p composite video/75Ω
- Size (enclosure): 1.2"L x 1.2"W x 0.7"D
- Weight: 0.9 lbs. • One-year warranty

Requires: 9VDC @ 500 mA power supply (recommend P/N 100853, pg 61)

Includes: Mounting hardware and cable

Part No.	Description	1	10
168575	Mini enclosed camera	$139.95	$129.95

Black & White Camera

EIA Format



- 1/3" CCD image sensor
- 510(H) x 492(V)
- Horizontal resolution: >350 lines
- Scanning system: 2:1 interlace
- Sensitivity: 0.7 lux/F2.0
- S/N ratio: 46dB
- Video output: 1Vp-p, composite video 75Ω
- Power supply: 12VDC (recommend P/N 162996, pg 61)
- Power consumption: 110mA • FOV: 92˚
- Electronic shutter: 1/125,000 sec. (linear)
- Size: 1.3"L x 1.3"W x 1.2"H

Part No.	Description	1	10
171029	Camera board	$47.95	$42.95

Color Interline Camera

Water Resistant with Adjustable Mounting Bracket



- EIA format
- 1/3" CMOS image sensor
- EIA format: 512(H) x 492(V)
- 330 horizontal line resolution
- 2:1 scanning interlace system
- 5 lux sensitivity
- Video output: 1V p-p; 75Ω
- 6mm lens/F2.0
- S/N ratio: 40dB • FOV: 530
- Electronic shutter: 1/60 – 1/1,200 sec.
- Connectors: 1 standard RCA female jack for video, and in-line 2.1mm power-plug connector for power supply • Size: 2.6"L x 0.9"Dia.

Requires: 12VDC @ 40mA center positive power supply (recommend P/N 162996, pg 61)

Includes: Adjustable mounting bracket and instruction sheet

Part No.	Description	1	10
185017	Color camera	$99.95	$89.95

4-Channel Matrix Switcher

NTSC Signal Format



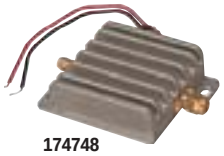
- Inputs: 4
- Video input/output: 1Vp-p, 75Ω
- Output: 2 selectable on screen
- Video gain: from attenuation to amplifier (0.8 to 1.4 Vp-p)
- Video bandwidth: 2MHz (±3dB)
- Switching interval: 1 to 30 seconds selectable on screen • By-pass, scan, home selectable on screen
- BNC connector to video & RCA connector for audio
- Size: 9.3"L x 4.7"W x 1.6"H • Weight: 2.4 lbs.

Includes: Manual, remote control and 9VDC @ 200mA power supply

Part No.	Description	1	10
169228	4 channel switcher	$74.95	$65.49

2.4GHz Wireless Antenna Booster

Extend Video Transmitting Distance



174748



179872

- Output power: 800mW
- Audio/Video booster
- FM design
- Impedance output: 50Ω typical (to antenna)
- Video output: 1Vp-p composite video; 75Ω (to camera)
- Size: 2.0"L x 1.9"W x 0.7"H

Includes: Wall transformer, adapter and mounting hardware

Part No.	Description	1	10
174748	Antenna booster	$189.95	$169.95
179872	Wireless extension cable ...	10.99	9.89

2.4GHz High Gain Directional Antenna



- Indoor and outdoor use
- Gain: 8.5dB
- Impedance: 50Ω
- Weatherproof and corrosion resistant
- Distance: 150 – 300ft. (open area)
- Frequency range: 2300 – 2500MHz
- Cable: RG58/U with SMA male connector
- Connector: SMA male • Cable length: 0.8 ft.
- Size: 4.8"W x 4.8"H x 2.8"D • Weight: 0.7 lbs.

Includes: Mounting hardware

Part No.	Description	1	10	25
174721	Antenna	$129.95	$116.95	$104.95

2.4GHz SMA RF Antenna

Unidirectional



- For use with 2.4GHz cameras, transmitters, and receivers
- Gain: 3dB • SMA male • Size: 3.6"L

Part No.	Description	1	10
179864	2.4GHz antenna	$15.95	$14.35

Mini Alarm Siren



- Sound pressure: 108dB
- Output frequency: 3000Hz
- Rated: 2-12VDC @ 300mA
- Adjustable mounting plate
- 16" color coded connector wires, tinned • Size: 2.8"Dia. x 2.5"L

Part No.	Description	1	10	50
148152	Alarm siren	$7.95	$5.95	$4.19

Pan/Tilt Controller Box

With Zoom Lens Control



- Input voltage: 115VAC
- Single joy pad and auto pan control for manual and auto pan operations
- Iris, focus, and zoom paddle switches for manual and auto pan operations
- Use with pan/tilt mechanism, P/N 179899, below
- Lens connectors: screw down terminals
- Pan/tilt connectors: 8P mike connector
- Power consumption: 8.5 watts
- Size: 8.6"W x 7.9"D x 1.6"H • Weight: 4.0 lbs.

Part No.	Description	1	10
179881	Pan/tilt controller box	$87.99	$76.95

Indoor Pan/Tilt Mechanism

Continuous Pan



- Auto mode for continuous pan
- Angular travel pan: 355˚
- Angular travel tilt: ±60˚ (up/down)
- Externally adjustable limited switch
- Pan speed: 6˚/sec.
- Tilt speed: 3˚/sec.
- Input voltage: 115VAC
- Maximum load: 11 lbs.
- Weight: 4.6 lbs.
- Use with controller box, P/N 179881, above
- Size: (overall) 7.5"H x 6.2"W x 5.4"D

Part No.	Description	1	10
179899	Pan/tilt mechanism	$249.95	$224.95

Outdoor Metal Camera Enclosures



170931

- Plate glass: 3mm thick

170931: without heater

- Clear window area: 2.5"W x 2.3"H
- Indoor use
- Max. camera size: 4.0"L x 2.4"W x 2.4"H
- Size: 16.0"L x 4.9"W x 4.9"H • Weight: 2.8 lbs.

170940: with heater

- Clear window area: 3.5"W x 3.1"H • Outdoor use
- Max. camera size: 6.5"L x 3.2"W x 3.2"H
- Size: 11.0"L x 3.6"W x 3.6"H • Weight: 6.8 lbs.

Part No.	Description	1	10
170931	Camera housing	$29.95	$26.95
170940	Camera housing w/ heater	69.95	62.95

Monitor/TV Wall Mount Brackets



- 95˚ swivel
- Assembly required
- Requires unit base to be mounted securely to wall stud
- Wall mount screws not included
- Supports up to 66 lbs. • Weight: 9.0 lbs.

Part No.	Description	1	10
181817	12"–18" TV wall mount	$29.95	$27.95

We'll match the advertised price of any like product.

Jameco's Low-Price Guarantee

It's that simple!

4-Channel 2.4GHz Wireless Audio/Video Transmitter System

EIA Format



- ISM band: 2.4–2.483GHz
- Four selectable channel transmitter and receiver
- Audio response: 20Hz–20kHz
- Antenna mode: dipole (omnidirectional)
- Video output: 1V p-p/75Ω composite video
- RCA jacks for audio/video connectors
- Weight: 3.3 lbs.

Includes: Two 12VDC @ 500mA w/ 2.1mm x 5.5mm center positive plug, and patch cables

Transmitter: • Size: 3.5"L x 2.5"W x 1.1"H

- Input voltage: 12VDC @ 500mA
- Output voltage: 12VDC @ 300mA

Receiver: • Size: 5.1"L x 4.0"W x 1.0"H

- Input voltage: 12VDC @ 500mA

Part No.	Description	1	10
169631	4-ch. wireless system	$151.95	$134.95

4-Channel 2.4GHz Wireless Audio/Video Receiver and 10mW Transmitter

Make your camera wireless up to 495 feet!



192858



192866

- Transmission range: 495' (150M outdoors); 198' (50M indoors)
- 4-channel switch selectable on transmitter
- Output power (transmitter): 10mW
- Output impedance: 50Ω typical
- Video input: 1Vp-p composite
- Audio input: 2Vp-p max.
- RCA jacks for audio and video connectors

Receiver:

- Video loss detection and freeze channel
- Non-volatile memory protects system set-up from power loss
- Mute and alarm trigger port
- Size: (transmitter) 4.5"L x 3.2"W x 1.0"H
- Size: (receiver) 6.5"L x 5.5"W x 1.4"H
- Weight: 1.8 lbs.

Includes: RCA cable, 12VDC@500mA adapter, RCA to F connector adapter (receiver unit only)

Part No.	Description	1	10
192858	4-channel transmitter	$89.95	$79.95
192866	4-channel receiver	124.95	112.95

Mounting Brackets for Enclosed Camera



171002 170982

- Material: plastic
- Base mounted w/ 3 screws
- Swivel angle: 360˚
- Tilt angle: 90˚
- For use w/ enclosed cameras (P/Ns 169607/150404/169404, pg 164)

171002:

- Color: ivory
- Max load: 11 lbs.

170982:

- Color: white
- Max load: 6.6 lbs.

Part No.	Mfr. Cross Ref. No.	Ht. (in.)	1	10
171002	15-B002L	6.4	$5.95	$5.39
170982	15-B004	2.0	6.95	6.25

Color and B&W Cameras



171248

- 1/3" Panasonic CCD image sensor
- Image size: 4.82mm (H) x 3.64mm (V)
- More than 380TV lines horizontal resolution
- 15.734kHz synchronous frequency
- Scanning system: 2:1 interlace
- S/N ratio: more than 46dB • FOV: 42.6˚
- BNC connector for video
- Video output: 1Vp-p; 75Ω
- Size: 4.0"L x 2.2"W x 2.0"H • Weight: 0.9 lbs.

171256: B&W • 0.3 lux
- 512(H) x 492(V) EIA signal format
- Auto iris: DC driver / AES / video driver switchable

171248: Color • 1.0 lux / F1.4
- 512(H) x 492(V) NTSC signal format
- Auto iris: DC driver / video driver switchable

Requires: 12VDC @ 140mA power supply (recommend P/N 162996, pg 61)

Part No.	Description	1	10
171256	B&W CCD camera	$109.95	$99.95
171248	Color CCD camera	224.95	201.95

Black & White CCD Camera with 6" Monitor



Camera: EIA Format
- 512(H) x 492(V)
- 1/3" CCD image sensor
- 380 TV line resolution
- 6 IR LED light for view in the dark application
- 15.734kHz horizontal synch. frequency
- 2:1 interlace scanning system • S/N ratio: 48dB
- 1/100,000 second electronic shutter
- 3.6mm lens with F2.0 • Video output: 1Vp-p, 75Ω
- Audio output: 2Vp-p, 50Ω maximum • 0 lux at 2M
- BNC connector for video & RCA connector for audio
- Power supply: 12-15V @ 130mA • FOV: 92˚
- Size: 2.2"W x 2.8"D x 2.1"H

Includes: Camera bracket

Monitor: EIA Format
- 6" 2-channel flat screen monochrome monitor
- Vertical hold, brightness and contrast adjustment knobs at rear of monitor
- Size: 6.7"W x 7.2"D x 5.2"H • Weight: 7.7 lbs.

Includes: 20M audio/video cable, manual and 15V @ 1A center positive power supply

Part No.	Description	1	10
170616	Camera w/ monitor.....	$159.95	$143.95

10" Black & White Security Monitor with Audio



- EIA format
- 9" viewable screen
- Resolution: 700 line
- LED indicator for power
- Push down front panel for vertical hold and size, brightness, volume, and contrast adjustments, power on/off switch
- Horizontal frequency, focus and sub-brightness adjustment, impedance input switch, 1 BNC female & 1 RCA jack for audio/video input/output
- Input voltage: 120VAC @ 60Hz (2-prong 5' cable)
- Size: 9.3"W x 12"D x 9.1"H • Weight: 15 lbs.

Includes: Manual

Part No.	Description	1	10
192719	10" black & white monitor	$119.95	$107.95

Night Vision Infrared Lighted Camera

EIA Format

2.4GHZ



169607

- Adjustable camera lens
- 6 infrared LEDs for night vision
- Scanning system: 2:1 interlace
- Horizontal sync. freq.: 15.734kHz
- 380 TV line resolution • FOV: 92˚
- Video output: 1V p-p; 75Ω
- 0.1 lux with F2.0 • Lens: 3.6mm

Includes: 12VDC @ 500mA power supply and wall mounting bracket

169607:
- 2.4GHz • 4-channels jumper configurable
- Audio output: 2V p-p max.
- Size: 2.8"L x 2.1"W x 2.1"H
- Weight: 1.3 lbs.

150404:
- Auto iris controlled
- Built-in voltage regulator
- Matching connectors: RG59 BNC (P/N 71271, pg 126)
- Operating voltage: 12–15VDC
- Size: 2.9"L x 2.0"W x 2.0"H
- Weight: 1.2 lbs.



150404

SALE

Part No.	Description	1	10
169607	2.4GHz infrared camera	$149.95	$134.95
150404	Infrared lighted camera	119.95	109.95

Color Camera with Audio Microphone

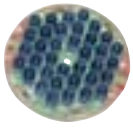


NTSC Format
- Pick-up device: 1/4" CCD image sensor • FOV: 92˚
- Picture elements: 512(H) x 492(V) lines
- 330 TV line resolution
- Minimum illumination: 2 lux
- Horizontal sync. frequency: 15.734kHz
- Vertical frequency: 60Hz • Lens: 3.8mm/F2.0
- Scanning system: 2:1 interlace
- Video output: 1V p-p, 75Ω
- Audio output: 2V p-p max.
- Size: 2.9"L x 2.1"W x 2.0"H
- Weight: 0.3 lbs.

Requires: 12V regulated power supply (recommend P/N 162996, pg 61)

Part No.	Description	1	10
169404	Encl. camera w/ audio	$149.95	$134.95

IR LED Illuminator Kit



- 41-piece kit
- Beginner level
- Improve low-light camcorder and CCD camera images without visible light
- 36 high powered infrared LEDs
- At 24' the beam is approximately 3.5' across
- Dimensions: 2" Diameter

Part No.	Description	1	10	25
157964	IR illuminator kit	$14.95	$13.49	$11.95
114825	Power supply	4.75	4.25	3.79

Opening an account is easy!!

Corporate Customers

Call 1-800-831-4242 for details today

2.4GHz Wireless Color CCD Camera

With AES/AI Video Drive



174810: Lens not Included

- 1/3" CCD interline sensor
- 380 TV line resolution
- 512(H) x 492(V)
- Scanning system: 2:1 interlace
- Auto electronic shutter (AES): 1 to 1/100,000 sec
- Auto iris (AI) control video drive switchable
- S/N ratio: more than 48dB
- Video output: 1Vp-p/75Ω
- Impedance output: 75Ω typical
- LED power "ON" indicator at rear panel
- Size: 4.0"L x 2.2"W x 2.0"H
- Weight: 2.1 lbs.
- Color; NTSC format; 2.0 lux/F1.2



208645

NEW

Includes: 15VDC power supply, antenna, mounting bracket and manual

208645:
- Auto Iris direct drive • FOV: 46°
- Aperture: ±4F=1.4~64

Part No.	Description	1	10
174810	Color camera	$349.95	$314.95
208645	Auto Iris lens	69.95	62.95

Mini Dome Color Camera

NTSC Format



- 1/4" CCD image sensor
- 512(H) x 492(V)
- 330 horizontal line res.
- 15.73kHz horizontal synch. frequency
- S/N ratio: 46dB
- Scanning system: 2:1 interlace
- Up to 1/96,000 second electronic shutter
- 3.6mm lens with F2.0
- Video output: 1Vp-p, 75Ω
- Power supply: 12VDC @ 160mA (recommend P/N 162996, pg 61)
- 2 lux/F2.0 • FOV: 92˚
- Size: 3.5"Dia. x 2.3"H

Includes: Mounting hardware

Part No.	Description	1	10
171037	Mini-dome camera	$139.95	$125.95

For our complete selection of books



see pages 165 - 167

Easy PIC'n

Beginner Level PIC Applications



Square 1 Publishing Learn all about the PIC16C54 & PIC16C84 and apply to the whole line of microcontrollers. This easy-to-use guide teaches assemblers, programming, interrupts, timing/counting and I/O conversion. (160 pages, 1999)

• Size: 8.5" x 11.0" • Weight: 1.0 lb.

Part No.	Description	1	10
136645	Easy PIC'n	$29.95	$26.95

PIC'n up the Pace

Second in the PIC Series



Square 1 Publishing The next book from where Easy PIC'n left off. Includes topics on Op Amps, shift registers, liquid crystal display interface, digital to analog conversions, analog to digital conversions and decimal interface. (269 pages, 1999)

• Size: 8.5" x 11.0" • Weight: 1.7 lbs.

Part No.	Description	1	10
145736	PIC'n up the Pace	$34.95	$31.49

PIC'n Techniques

Intermediate Level PIC Applications



Square 1 Publishing Describes the unique advanced features of the 8-pin microcontrollers; the use of timers 1 and 2; capture/compare module; followed by timing, counting, pulse width modulation and datalogging. (311 pages, 1999)

• Size: 8.5" x 11.0" • Weight: 2.0 lbs.

Part No.	Description	1	10
161242	PIC'n Techniques	$34.95	$31.49

Serial PIC'n

Serial Communications PIC Applications



Square 1 Publishing Introduces serial communications, including synchronous and asynchronous communications. Provides you with a set of serial communications functions and subprograms as well as how to communicate serially with the PICmicro family of microcontrollers. (530 pages, 1999)

• Size: 8.5" x 11.0" • Weight: 3.3 lbs.

Part No.	Description	1	10
163871	Serial PIC'n	$49.95	$44.95

BASIC Stamp Data Book



Newnes Publishing Covers both the hardware and software of the Parallax BASIC stamp I and II microprocessor operation and design. The basic stamp is built on PC microcontroller hardware and uses PBASIC as its programming language which makes it simple to use and modify for beginners and professionals. (305 pages, 2000)

• Size: 6.0" x 9.2" • Weight: 0.9 lbs.

Part No.	Description	1	10
143651	Basic Stamp Data Book	$34.95	$31.49

Programming & Customizing PICmicro Microcontrollers

Second Edition



McGraw-Hill Details the features of the PICmicro® and how to use these embedded chips to access and control many different devices. Shows what happens within the PICmicro® when an instruction is executed and how it interfaces with external devices. (1190 pages, 2001) • Size: 9.2" x 7.3" • Wt.: 4.0 lbs.

Includes: CD-ROM and PIC PCB

Part No.	Description	1	10
183046	PICmicro Programming	$49.95	$44.95

PIC Microcontroller Project Book

Comprehensive Beginner's Guide



McGraw-Hill Provides you with hands-on directions for putting Microchip's RISC-based chips with up to 8k of memory to work. Starting with simple projects and experiments, this book leads you gradually into sophisticated programming techniques. Provides you guidance on getting the equipment you need and programming your chip. (203 pages, 2000)

• Size: 7.3" x 9.2" • Weight: 1.0 lb.

Part No.	Description	1	10
174650	PIC Beginner's Guide	$29.95	$26.95

PIC BASIC Programming and Projects



Newnes Publications The BASIC language, as used by the most popular PIC compilers, is introduced from square one, with simple code used to illustrate each of the most commonly used instructions. PIC BASIC is the simplest and quickest way to get up and running – designing and building circuits using a microcontroller. (210 pages, 2001) • Size: 6.1" x 9.2" • Wt.: 0.8 lbs.

Part No.	Description	1	10
200168	PIC BASIC Programming	$34.95	$32.95

Easy Step'n Version 1.0



Square 1 Publication Provides the experimenter on how to determine important electrical and mechanical specifications of a motor using simple, easy to build test equipment, design and build microcontroller-based control systems, and driver circuits needed to switch the power applied to stepper motors. (199 pages, 2001)

• Size: 8.5" x 11" • Weight: 1.3 lbs.

Part No.	Description	1	10
199700	Easy Step'n Version 1.0	$34.95	$32.95

Programming and Customizing The BASIC Stamp Computer



McGraw-Hill A comprehensive tutorial on the easy-to-use BASIC Stamp single board computer and a primer on electronics. Includes software tools to begin developing PIC applications. (284 pages,1998)

• Size: 7.4" x 9.0" • Weight: 1.2 lbs.

Includes: CD-ROM

Part No.	Description	1	10
154667	BASIC Stamp Book	$34.95	$31.49

Handbook of Microcontrollers



McGraw-Hill Covers topics such as architecture, instruction set for the built-in processor, features and peripherals of the microcontroller and common methods of interfacing microcontrollers with peripheral devices. Supports devices such as PIC MI DS1820, DS1307, 8051, 80C310/320/520, 68HC05C8/ 705J1A/05P9A. (861 pages, 1999)

• Size: 7.5" x 9.0" • Weight: 3.9 lbs.

Includes: CD-ROM with application building tools, source code examples & manufacturer's data sheets

Part No.	Description	1	10
161832	Microcontroller Handbook	$38.49	$35.49

Programming and Customizing 8051 Microcontrollers



McGraw-Hill Provides you with a complete understanding of the 8051 chip compatibles along with all the information needed to design and debug applications. Covers how to use these embedded chips to access and control many different devices. Includes over 30 experiments, 12 projects and CD-ROM featuring source code and PDF data sheets. (541 pages, 1999)

• Size: 7.5" x 9.2" • Weight: 2.5 lbs.

Part No.	Description	1	10
161402	Program/Customizing	$34.95	$31.49

The Microcontroller Application Cookbook



Woodglen Press This cookbook is a collection of interface circuits. It is a reference to circuits and interface code that can be customized for more advanced users. (248 pages, 2000)

• Size: 5.3" x 8.6" • Weight: 0.7 lbs.

Part No.	Description	1	10
181681	Microcontroller Cookbook	$34.95	$29.95

The Microcontroller Idea Book



The Idea Book introduces low end embedded microcontroller design. It provides practical designs for use with data loggers, controllers and small computer applications. (277 pages, 1997)

• Circuits, programs and applications featuring the 8052-BASIC single chip computer

• Size: 7.8" x 10.5" • Weight: 1.6 lbs.

Part No.	Description	1	10	50
126375	Micro. Idea Book	$33.95	$29.95	$26.95

The Nuts & Volts of BASIC Stamp



This book is useful for newcomers to BASIC Stamps, and seasoned programmers looking for some hardware and software programming tips. With Nuts and Volts easy going style, the BASIC stamp is presented with a series of articles describing PBASIC source code and circuit hints wrapped around a set of real world applications. Over 70 applications featured in this two volume set. (982 pages, 1999)

• Size: 8.5" x 7.5" • Weight: 3.5 lbs.

Includes: CD-ROM

Part No.	Parallax No.	1	10
202315	28165	$48.95	$43.95

Part Number Color Code
New Sale Refurbished Closeout

IC Cross Reference Book



Prompt Publications The most comprehensive replacement and substitution guide available for engineers, technicians, and anyone who works with ICs and modules. The IC Cross Reference book is from the makers of PHOTOFACT® service documentation. It includes more than 35,000 part and type number listings for the United States, Europe, and the Far East. (152 pages, 1998)

• Size: 8.5" x 10.8" • Weight: 0.9 lbs.

Part No.	Description	1	10
124679	IC Cross Reference Book	$29.95	$26.95

IC Design Projects



Prompt Publishing Information of how a handful of versatile ICs work. Gives you information about TTL and CMOS ICs, and how power supplies, op amps and phase lock loops work. It also includes schematic diagrams, a step-by-step guide, parts list, and how to test projects such as battery chargers, 5-volt power supplies, DC motor controls and darkroom timers. (261 pages, 1998)

• Size: 7.4" x 9.3" • Weight: 1.0 lb.

Part No.	Description	1	10
153349	IC Design Projects Book ..	$19.95	$17.95

IC Projects for Hobbyist and Technicians



Prompt Publishing Written for hobbyists and technicians who are interested in projects for integrated circuits – projects that you will be able to breadboard quickly and test easily. (212 pages, 1997)

• Size: 6.0" x 9.0" • Weight: 0.7 lbs.

Part No.	Description	1	10
143271	IC Projects Book	$24.95	$22.49

Linear IC Pocket Book

NEW



Newnes Publishing Dealing mainly with linear ICs such as op-amps, pre-amplifiers, power amplifiers, signal-conditioner and power supply regulators, as well as various hybrid types; it is also a compilation of circuits that can be built as they appear, adapted or used as building blocks. (453 pages, 2000)

• Size: 3.8" x 7.8" • Weight: 0.8 lbs.

Part No.	Description	1	10
200133	Linear IC Pocket Book	$29.95	$26.95

Electronic Pocket Reference

Third Edition



McGraw-Hill Publishing A pocket reference manual that provides definitions, passive component equations and color coding, parameters of standard semiconductors, linear circuits, filters, power supply and regulation, electronic measurement and mathematical tables and formulas. (529 pages, 2000)

• Size: 4.0" x 6.0" • Weight: 0.9 lbs.

Part No.	Description	1	10
174481	Electronics Pocket Ref.	$27.95	$25.49

Electronic Circuit Guidebooks

Prompt Publications



Volume 1: Sensors

In this book you will find information needed about typical sensors, along with a large amount of information about analog sensor circuitry. Amplifier circuits are well covered, along with differential amplifiers, analog signal processing and more. (339 pages, 1997)

• Size: 7.4" x 9.3" • Weight: 1.3 lbs.

Part No.	Description	1	10
140732	Sensors	$31.95	$28.95

Volume 2: IC Timers



This book demonstrates the theory of how various timers work by way of introduction to resistor-capacitor circuits, in-depth chapters on TTL and CMOS digital timers, the LM-555, and other IC devices, op amp timer circuits, retriggerable and long duration timers. It goes further by presenting a variety of circuits and projects. (240 pages, 1997)

• Size: 7.3" x 9.3" • Weight: 1.0 lb.

Part No.	Description	1	10
146966	IC Timers	$31.95	$28.95

DSP Filters – Designing and Applying



Prompt Publishing Breaks down design complexity issues through the use of simplified tutorials and step-by-step instructions along with a collection of projects. The author presents the design formulas needed to build the digital equivalent of standard audio filters – low, high, band-pass, and band-stop. Includes the more specialized peaking and shelving filters. (344 pages, 2001)

• Size: 7.5" x 9.3" • Weight: 1.4 lbs.

Part No.	Description	1	10
190473	DSP Filters Book	$39.95	$35.95

Digital Logic IC Pocket Book

NEW



Newnes Publishing A handy reference guide to modern 74 series and 4000 series digital logic ICs presents 620 useful and carefully selected circuits, diagrams, graphs and tables. 185 TTL and CMOS ICs provide detailed information and practical applications. Aimed at design engineers and technicians, this pocket book is also useful to amateurs and students. (400 pages, 1996)

• Size: 3.8" x 7.8" • Weight: 0.8 lbs.

Part No.	Description	1	10
200141	Digital Logic IC Pocket	$29.95	$26.95

CMOS Cookbook



Newnes Publishing Everything you need to know to intelligently use CMOS circuits. User-oriented, stresses real-world applications, pays attention to detail, with a minimum of math and heavy theory. (512 pages, 1997)

• Size: 5.5" x 8.5" • Weight: 1.3 lbs.

Part No.	Description	1	10
39221	CMOS Cookbook	$24.95	$22.49

Robot Builder's Bonanza



TAB Publishing This fascinating guide offers you a complete, unique collection of tested and proven project modules that you can mix and match to create an almost endless variety of highly intelligent and workable robot creatures. (753 pages, 2001) • Size: 7.3" x 9.2" • Wt.: 2.5 lbs.

Part No.	Description	1	10
137171	Robot Builder's Bonanza ..	$23.95	$21.45

Applied Robotics with CD-ROM

Comprehensive Beginner's Guide



Prompt Publishing Designed to give the beginner a thorough and complete introduction into the field of robotics with simple projects and easy-to-read explanations. Detailed and extensive schematics, programs, and descriptions guide you through challenges of building a working robot. (311 pages, 2001) • Size: 7.4" x 9.2" • Wt.: 1.3 lbs.

Part No.	Description	1	10
185501	Applied Robotics Book	$29.95	$26.95

Electric Motors and Control Techniques



TAB Publishing Explains how different types of motors operate, and how electronic control devices can be used to improve efficiency in a wide range of applications. (294 pages, 1994) • Size: 7.3" x 9.2" • Wt.: 1.1 lbs.

Part No.	Description	1	10
137162	Electric Motors & Control	$24.95	$22.49

Oscilloscope Guide Book



Prompt Publishing This book's full illustrations and diagrams bring oscilloscopes to life. Learn how to use them to conduct many tests and measurement techniques. This book answers questions about various types of oscilloscopes and how to obtain useful test results. (214 pages, 2001)

• Size: 7.5" x 9.2" • Weight: 0.9 lbs.

Part No.	Description	1	10
185404	Oscilloscope Guide Book	$39.95	$35.95

TTL Logic Data Book



Texas Instruments Contains specifications and technical information on a broad line of TTL integrated circuits including Schottky TTL circuits. (1240 pages, 1988)

• Size: 6.0" x 8.5" • Weight: 2.6 lbs.

Part No.	Description	1	10
88225	TTL Logic Data Book	$34.95	$31.49

CMOS Sourcebook with CD-ROM

NEW

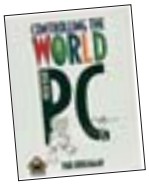


Prompt Publishing CMOS gives you the option to use simple technology and eliminate over-design. This book contains a CD-ROM with datasheets for the CMOS 4000 family and information on how to interface CMOS with SCRs and TRIACS. (390 pages, 2001)

• Size: 7.4" x 9.3" • Weight: 1.6 lbs.

Part No.	Description	1	10
199654	CMOS Sourcebook	$39.95	$37.95

Controlling the World with Your PC



Hightext Publishing Make your PC control stepping motors, monitor fluid levels, or switch appliances on and off! Each of the circuits in this book connects directly to the parallel printer port of your PC and comes complete with a circuit diagram and listings for control software written in Pascal, C and BASIC. (257 pages, 1994)

Includes: 3.5" disk

Part No.	Description	1	10
116943	Controlling the World	$34.95	$31.49

PC Hardware Projects Vol 2



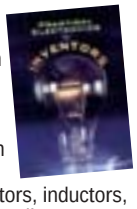
Prompt Publications If you have always wanted to know more about using stepper motors or need a setup to drill your own PC boards quickly and accurately, for example, this is the book that will help you. (222 pages, 1997)

• Size: 7.8" x 9.3" • Weight: 1.0 lb.

Includes: Companion disk.

Part No.	Description	1	10
143280	PC Hardware Projects	$29.95	$27.95

Practical Electronics Book for Inventors



McGraw-Hill Provides information needed for practical use in a format you can understand. With hand-drawn illustrations, this learn-as-you-go guide shows you what a particular device does, looks like and compares with other similar devices. Provides an easy-to-understand overview of basic components, resistors, diodes, capacitors, inductors, rectifiers, amplifiers, voltage regulators, discrete passive and active devices and so on. (604 pages, 2000) • Size: 8.4" x 11" • Wt.: 2.8 lbs.

Part No.	Description	1	10
174529	Practical Electronics	$39.95	$34.95

Analog and RF Circuits

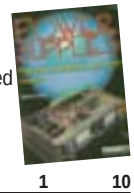
NEW



Newnes Publishing The author of this book, who is one of the leading analog and RF engineers, uses illustrations and examples rather than mathematical theory, presents a wealth of ideas and tips based on his experience. Essential reading for anyone designing analog circuits. Topics include RF amplifiers, oscillator design and behavior, waveform analysis, optoelectronics, filters, and op-amps. (299 pages, 1998) • Size: 7.4" x 9.2" • Wt.: 1.1 lbs.

Part No.	Description	1	10
200150	Analog and RF Circuits	$52.95	$49.95

Power Supplies Projects



Prompt Publications Guides you through the fundamentals of power supply design and construction. Includes basics of AC and DC, regulated and unregulated, linear and switching power supplies. (124 pages, 1997)

• Size: 6.0" x 9.0" • Weight: 0.4 lbs.

Part No.	Description	1	10
145453	Power Supplies Project.....	$19.95	$17.95

Parallel Port Complete



Lakeview Research A practical, hands-on approach to PCs and their connections to parallel ports. This state-of-the-art book offers many tips on how to get the most out of your parallel port. Enhanced (EPP) and extended capabilities (ECP) types are covered. (343 pages, 1999)

• Windows® 3.1 and Windows® 95 • PC to PC links • Selecting cables • Size: 7.0" x 10.0" • Wt.: 1.4 lbs.

Includes: 3.5" diskette

Part No.	Description	1	10
138261	Parallel Port Complete	$39.95	$35.95

Serial Port Complete



Lakeview Research RS-232 and RS-485 are the most versatile, inexpensive interfaces for linking, but the hardware and programming are often misunderstood. This book provides you with everything you need to design, program, install and troubleshoot the links you set up. (306 pages, 1998) • Size: 7" x 10" • Weight: 1.3 lbs.

Includes: 3.5" diskette

Part No.	Description	1	10
154771	Serial Port Complete	$39.95	$35.95

Video Scrambling & Descrambling for Satellite & Cable TV

Second Edition



This best selling book details the hows and whys of encoding and decoding video signals. Included is information on analog/digital conversion, phase-locked loops, digital techniques, and IC data sheets. (292 pages, 1998)

• Size: 8.5" x 11.0" • Weight: 1.3 lbs.

Part No.	Description	1	10
136442	Scram & Descrambling	$29.95	$26.95

Teach Yourself Electricity and Electronics Handbook



McGraw-Hill This book features conversational writing style, quizzes, self-tests and illustrations that make learning easier. You will be able to design basic electronic circuits, determine waveform combinations, calculate power and impedance and much more. (659 pages, 1997)

• Size: 7.5" x 9.3" • Weight: 3.0 lbs.

Part No.	Description	1	10
146982	Teach Yourself Electricity	$34.95	$31.49

How to Test Almost Everything Electronic



TAB Publishing Filled with easy-to-follow instructions on how to troubleshoot all types of electronic systems. Learn the many uses of electronic tools, test equipment and troubleshooting techniques using flowcharts. (326 pages, 1993)

• Size: 7.4" x 9.3" • Weight: 1.3 lbs.

Part No.	Description	1	10
126199	How to Test Everything	$17.95	$16.15

CD-R/DVD Disk Recording Demystified





McGraw-Hill Includes topics such as creating and replicating discs inexpensively without errors; techniques for digitally recording music, video and multimedia; understanding CD-R and DVD; creating content quickly using tools and applications. (528 pages, 2000)

• Size: 7.2" x 9.4" • Weight: 2.2 lbs.

Includes: CD-ROM with trial software

Part No.	Description	Price
175231	CD-R/DVD Disc Recording	$37.25

Everything You Need To Develop Custom USB Peripherals Book



Lakeview (2nd Edition) This USB Complete book provides an easy-to-use interface for computer peripherals. The book covers topics such as what USB can do, transfer types, chip choices, what's inside a USB controller, writing firmware, how the host communicates and more. (523 pages, 1999)

• Size: 7.0" x 9.0" • Weight: 1.9 lbs.

Part No.	Description	1	10
171900	Complete USB Book	$49.95	$44.95

Computer Networking for the Small Business & Home Office



Prompt Publications Provides a solid reference that covers all aspects of small business and home-office network technology. In addition, takes the reader on a tour of networking trends such as peer-to-peer, distributed computing, web servers, portals, and wireless networks. (387 pages, 2001)

• Size: 7.4" x 9.3" • Weight: 1.6 lbs.

Part No.	Description	1	10
199662	Computer Networking	$39.95	$37.95

Troubleshooting & Repairing Consumer Electronics without a Schematic



TAB Publishing Learn how to locate, test, and repair defective components in audio amplifiers, car radios, cassette decks, TV chassis, compact disc players, power supplies, AM/FM receivers and VCRs. (475 pages, 1997)

• Size: 7.4" x 9.3" • Weight: 1.1 lbs.

Part No.	Description	1	10
136080	Consumer Electronics	$22.95	$20.95

Understanding Telephone Electronics

Fourth Edition



Newnes Publishing Offers comprehensive coverage of the latest developments in fiber optic technology, the convergence of telecommunications, cable-TV and internet services, and CTI (Computer Telephony Integration). (402 pages, 2001)

• Size: 7.4" x 9.3" • Weight: 1.4 lbs.

Part No.	Description	1	10
75504	Telephone Electronics	$29.95	$26.95

Part Number Color Code
New Sale Refurbished Closeout

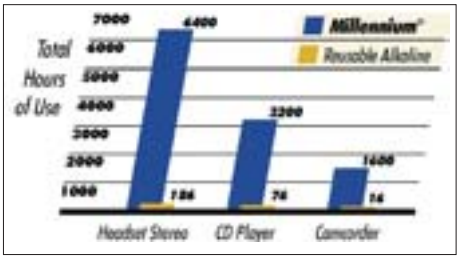
Call for additional OEM PRICING – we carry major manufacturers.

Long-Lasting NiMH Batteries and Chargers



185252 185308 185295

Lasts 10-30 times longer than Rechargeable Alkaline!



Why buy & throw away hundreds of batteries? Now you can reuse longer-lasting, money saving NiMH rechargeable batteries instead! They feature twice the power of NiCad batteries, so they're ideal for power-hungry devices like digital cameras & camcorders. The chargers below are specifically designed for NiMH batteries.

NiMH Batteries

Part No.	Description	1	10	25	100
185279	2x AAA, 700mAh	$7.95	$7.19	$6.49	$5.95
185252	2x AA, 1600mAh	7.95	7.19	6.49	5.95
185261	4x AA, 1600mAh	13.95	12.49	11.25	9.95
197000	2x C, 2300mAh ...	9.95	8.95	8.15	7.29
196998	2x D, 2300mAh ...	9.95	8.95	8.15	7.29
197018	1x 9V, 150mAh ...	9.95	8.95	8.15	7.29

NiMH Chargers

Free Batteries

185308: AA charger with 4 AA batteries
185295: AAA, AA, C, D and 9V charger

Part No.	Description	1	10	25	100
185308	AA charger ...	$21.95	$19.95	$17.95	$15.95
185295	Universal chrgr	21.95	19.95	17.95	15.95

Eveready® Energizer® Alkaline Batteries



198707 198715 198723 198731

Energizer® and the Energizer Bunny® are registered trademarks of the Eveready Battery Company, Inc.

- Single use Energizer® alkaline batteries for heavy drain and frequent use applications

✳ **Prepackaged: please order in increments of 4**

Part No.	Description	1	4	8	12
198707	AA ..... ✳		$.82	$.74	$.68
198715	AAA ..... ✳		.82	.74	.68
198723	C ..... ✳		1.39	1.25	1.20

Part No.	Description	1	4
198731	9-volt type	$2.59	$2.22

4 AA Battery Holder



- Solder tabs
- 6" wire lead with connector
- Size: 2.3"L x 2.5"W x 0.64"H

Part No.	Description	1	10	100	1000
105857	Plastic battery holder	$.85	$.75	$.65	$.55

Lithium, Silver Oxide, Zinc Chloride and Alkaline Batteries

Applications: personal computers, workstations, test equipment, feature telephones, copiers, fax machines, video scramblers / descramblers and remotes.



146114 198791 150965 140783 11789 38543 33443 33371 33398

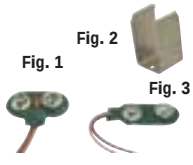
Part Number	Mfr. Cross Ref. No.	Description (V/Amp-hours/Dia.)	Battery Type	Terminals/Connection	Pricing 1	10	25	100
151087	AA	1.5V/0.7A-h/.545"	Zinc chloride	Barrel pressure fit (standard AA)	$.25	$.23	$.21	$.19
151095	GF6F22	9.0V/0.3A-h/1.0"L	Zinc chloride	Standard 9V	1.25	.99	.79	.65
140783	357	1.55V/1.60A-h/.454"	Silver oxide	Button cell	1.75	1.49	1.25	1.09
198740	377	1.5V/20mAh	Silver oxide	Button cell	.85	.75	.65	.59
150965	840	4.5V/600mA-h	Alkaline	Battery pack w/ connector (Apple®)	8.95	7.95	6.95	6.29
198791	MN1604	9.0V/.5A-h	Alkaline	9V	2.19	1.95	1.75	1.49
198758	CR2016	3V/80mAh	Lithium	Coin cell	.89	.84	.79	.75
14162	CR2032	3V/180mA-h/.787"	Lithium	Coin cell (clock/memory)	1.25	1.00	.75	.53
11789	CR2325	3V/165mA-h/.906"	Lithium	Coin cell (clock/memory)	1.95	1.75	1.49	1.25
198766	CR2430	3V/80mAh	Lithium	Coin cell	1.59	1.40	1.35	1.27
33371	TL5101P	3.6V/.85A-h/.579"	Lithium	Barrel w/ leads (clock/memory)	5.95	5.35	4.79	4.25
126754	TL5101S	3.6V/.85A-h/.579"	Lithium	Half AA (Macintosh®)	7.95	6.95	6.25	5.59
33398	TL5104P	3.6V/1.9A-h/.579"	Lithium	Barrel w/ lead (clock/memory)	7.95	6.95	6.25	5.59
146114	TL2100S	3.6V/1.9A-h/.579"	Lithium	Barrel pressure fit (clock/memory)	6.95	5.59	4.19	3.15
33427	TL5242W	3.6V/1.9A-h	Lithium	Battery pack w/ plug (PC)	9.95	8.95	7.15	5.39
33443	TL5293W	6.0V/1.9A-h	Lithium	Battery pack w/ plug (PC)	10.95	9.95	8.95	7.95

Coin Cell Battery Holders

Part No.	Mfr. Cross Ref. No.	Description	1	10	100	500
38535	2S2032	Battery holder for CR2032 (PC mount)	$.59	$.49	$.35	$.25
38543	2S2325	Battery holder for two BR2325 or one 2354 (PC mount)	.79	.71	.59	.55
196744	2032SM	Battery holder for CR2032 (SMT)	.69	.55	.42	.29

9 Volt Battery Snaps and Clip

- Use with standard 9 volt batteries • Fully insulated; contacts are nickel-plated brass • Female inner Dia. = 0.215"
- Leads are color-coded, stripped and pre-tinned • Snap: male outer diameter = 0.225" ✳ **10 Piece minimum**



Part Number	Fig.	Description	Dimensions (in.) L	W	H	Pricing 1	10	100	1000
11279	1	3", 26 AWG, 6 prong battery snap	1.0	.50	–	$.25	$.22	$.19	$.16
105793	2	Battery holder clip (9 volt)	.63	.71	1.2	.29	.25	.21	.18
109153	3	6", 26 AWG, 6 prong battery snap	1.0	.50	–	✳	.17	.15	.135
101469	3	10", 26 AWG, 6 prong battery snap	1.0	.50	–	.29	.25	.21	.14

Ni-Cad Batteries

Nickel-Cadmium batteries are rechargeable, sealed cells.

- Can be used for cyclic, trickle or float charge
- Recommend battery charger P/N 147598, pg 173



126720 119116 101653

Part No.	Mfr. Cross Ref. No.*	Description	Voltage	Amps	1	10	25	100
32627	S3300	AA	1.2V	500mA-h	$1.95	$1.75	$1.49	$1.25
126720	351FT	2-lead (pin)	3.6V	60mA-h	3.95	3.55	3.19	2.85
119116	3/V60R	3-lead (pin)	3.6V	60mA-h	3.95	3.49	2.95	2.49
101653	NA101-1	2-lead (eyelet)	3.6V	60mA-h	5.49	4.95	3.95	3.25

* Reference number may vary

TEMPEST Lead Acid Batteries



155328 155336 159679

- .187" (except P/N 159679 – .470") color-coded terminals
- Sealed • UL approved
- Rechargeable • Two-year warranty

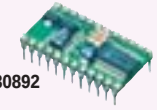
Tempest is an ISO-9001 Certified Company

Part Number	Product Number	Nom. Volt.	Amp-Hrs.	Charging Voltage Standby	Cyclic	Cross Reference Panasonic	YUASA	Eagle Picher	Size L" x W" x H"	Wt. (lbs.)	Pricing 1	10
155328	TR4-6	6	4A-h	6.75-6.9	7.2-7.5	LCR6VP	NP4-6	CF16V4	2.8 x 1.9 x 4.0	1.8	$10.49	$9.25
175054	TR10-6	6	10A-h	6.75-6.9	7.2-7.5	LCR6V10P	NP10-6	CFM6V10	5.9 x 2.0 x 3.8	4.3	15.95	14.49
159661	TR2.3-12	12	2.3A-h	13.5-13.8	14.4-15	LCR12V2.2P	NP2.3-12	CF12V1.5	7.0 x 1.3 x 2.3	1.9	12.95	11.49
155336	TR4-12	12	4A-h	13.5-13.8	14.4-15	LCR12V4PF	NP412	CF12V4	3.6 x 2.8 x 4.0	3.4	15.95	13.49
155344	TR7-12	12	7A-h	13.5-13.8	14.4-15	LCR12V7.2BP	NP712	CFM12V65	6.0 x 2.6 x 4.0	5.9	17.95	15.95
168188	TR12-12	12	12A-h	13.5-13.8	14.4-15	PS12120	—	CFM12V12	5.9 x 3.8 x 3.8	9.0	29.95	24.95
159679*	TR18-12	12	18A-h	13.5-13.8	14.4-15	LCR12V17BP	NPG18-12	CF12V18	7.1 x 3.0 x 6.6	13.8	39.95	33.95

***159679:** Bolt terminals w/ bolt & nut set

BASIC Stamps


127693


130892

BASIC Stamps are small computers using a variation of BASIC called PBASIC to control execution of many applications, such as robotics, radio-controlled interface of a digital camera, industrial pallet stacker, health monitoring systems, and much more. The BS1-IC has 8 I/O lines, while the BS2-IC has 16 I/O lines which can be connected directly to buttons, LEDs, registers, and many other TTL level devices. Each allows you to store data in the EEPROM before downloading a BASIC program.

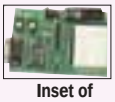
See page 35 for Serial LCD Modules

Includes: Embedded BASIC plus instruction sets; BASIC interpreter, EEPROM (non-volatile), a resonator and 5V regulator

Specifications:	127693	130892
EEPROM	256 bytes	2048 bytes
RAM	16 bytes	32 bytes
Cur. Draw @ 5V	2mA run/20µA	8mA run/100µA
Microcontroller	PIC16C56	PIC16C57
Program speed	2000/sec.	4000/sec.
# of I/O Pins	8	16 + 2 serial
Package	14-pin SIP	24-pin DIP
Volts Required	5-15VDC	5-15VDC
Size	1.4"L x 0.4"W	1.2"L x 0.6"W

140071: BASIC Stamp®2 Starter Kit w/ BS2-IC (27203)


140071


Inset of Carrier Board

Design your own project today using this BASIC Stamp kit. Includes the super carrier board, software, manual and programming cable. BASIC Stamp 2 can be connected directly to buttons, LEDs, registers and many other TTL devices.

Part No.	Parallax No.	Wt. (lbs.)	1	10
127693	BS1-IC	0.01	$34.95	$31.49
130892	BS2-IC	0.01	48.95	43.95
140071	27203 Kit	1.9	147.95	132.95

The Nuts & Volts of BASIC Stamp



With Nuts & Volts easy going style, the BASIC stamp is presented with a series of articles describing PBASIC source code and circuit hints. (982 pages, 1999)

Includes: CD-ROM

Part No.	Parallax No.	1	10
202315	28165	$48.95	$43.95

BASIC Stamp Data Book



Covers both the hardware and software of the Parallax BASIC stamp I and II microprocessor operation and design. The basic stamp is built on PC microcontroller hardware and uses PBASIC as its programming language. (305 pages, 2000)

Part No.	Description	1	10
143651	Basic Stamp Data Book	$34.95	$31.49

For complete specifications for the Basic Stamp Books see page 165.

50MHz BASIC Stamp 2SX Module

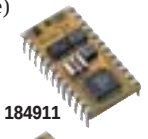


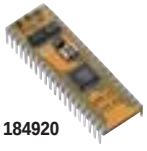
High-speed version of BS2-IC with additional RAM and EEPROM.

- Microcontroller: Ubicom SX28AC
- Program execution speed: 10,000 instructions/sec. • Volts required: 5-12 VDC
- EEPROM program size: 8 x 2k bytes, 4,000 instructions • Scratch pad RAM: 64 bytes
- Current draw @ 5V: 60mA run/200µA sleep
- Number of I/O pins: 16 + 2 serial
- RAM size: 32 bytes • Size: 1.2"L x 0.6"W

Part No.	Parallax No.	1	10	50
159775	BS2SX-IC 24-pin	$64.95	$59.95	$54.95

BASIC Stamp 2P Modules


184911


184920

In addition to the BS2-SX (above) features, includes new commands for HD44780 compatible LCDs, Dallas Semiconductor 1-wire and Philips I2C parts.

- Voltage requirements: 5-12VDC
- Program execution speed: 12,000 instructions/sec.
- RAM size: 38 bytes (12 I/O, 26 variable)
- Scratch pad RAM: 128 bytes
- EEPROM program size: 8 x 2k bytes, 4,000 instructions
- Current draw @ 5V: 40mA run; 400µA sleep

184911: Size: 1.2"L x 0.6"W x 0.4"H
- Number of I/O pins: 16 + 2 serial

184920: Size: 2.0"L x 0.6"W x 0.4"H
- Number of I/O pins: 32 + 2 serial

Part No.	Parallax No.	1	10
184911	BS2P24-IC 24-pin	$78.95	$71.95
184920	BS2P40-IC 40-pin	98.95	89.95

BS2P Professional Starter Kit



Provides the engineer with all the parts required to get started with the BSP2 microcontroller. The kit includes a selection of components and ready-to-run source code that will help master some of the exciting new features of the BSP2.

Includes: Programming manual, BS2P demo board, BS2P-24 microcontroller, DB9 (serial) programming cable, PCF8583 chip, 32.678kHz crystal, 24LC32 serial EERPOM, DS1822 thermometer,(3) 4.7K resistor, jumper wires.

Part No.	Parallax No.	1	10
202323	27235 kit	$194.95	$174.95
202331	BS2P40 adapter	24.49	21.95

BASIC Stamp 2 OEM Kit



A through-hole version of the popular BASIC Stamp modules.

- 20-pin SIP, standard 0.1" spacing
- PC board includes labeled component locations with visible traces between parts
- PBASIC interpreter and EEPROM are socketed to allow for replacement
- Programmed using PBASIC DOS or Windows® editor just like the BASIC Stamp modules

Includes: PBASIC interpreter, EEPROM, resonator, DB-9, resistors and transistors

Part No.	Parallax No.	Price
183071	27291 BASIC® Stamp 2 kit	$48.95

Stamp Works Kit



This all-in-one kit takes you beyond theory, into a well-written collection of 32 experiments that will teach you first class BASIC Stamp programming. You'll learn to get the most out of the BASIC Stamp and to increase its versatility by connecting to popular active and passive components.

Includes: Manual, BASIC Stamp Experiment Board, BS2-IC, 2x16 parallel LCD with custom cable, digital multimeter with 2 probes, wire cutter/stripper/pliers, three 100' rolls 22 AWG wire, screwdriver kit, photoresistor, 555 timer, 8-bit serial-to-parallel and 8-bit parallel chips, Dallas Semiconductor 1620 digital thermometer and real-time clock with 32.768MHz crystal, National Semiconductor ADC0831 8-bit A/D converter, Maxim 7219 8-digit LED display driver, National Semiconductor LM358 op-amp, stepper motor, servo, power supply, resistor assortment, capacitors, serial cable, CD-ROM and plastic box for parts
- Weight: 4.0 lbs.

Part No.	Parallax No.	1	10
184946	27297	$348.95	$314.95

BASIC Stamp Prototyping Boards


164726

Optional boards for BS1-IC, BS2-IC and BS2SX-IC Stamps.

- Easy use of Stamp with prototyping area, 9-volt battery clips, I/O header,reset button, and programming connector

130921: Use w/ P/N 130892, far left
- 3.0"L x 2.6"W

164726: Use w/ P/N 127693, 130892, far left and P/N 159775, above
- 4.0"L x 3.0"W

Part No.	Parallax No.	1	10
130921	27120	$22.95	$20.95
164726	27130	49.95	44.95

BS2P24 Demo Board Module



The BS2P demo board is designed as a low cost platform to test and experiment with the new features of the BASIC stamp 2P24, in particular: Dallas Semiconductor 1-Wire® communications, Philips I2C™ communications, and working with standard parallel LCDs (with Hitachi HD44780 or compatible). The demo board is not exclusive to the BS2P; it is physically and electrically compatible with all 24-pin BS2-series BASIC stamps. The board features:

- 2.1mm center positive power jack
- DB-9 female connector for serial programming
- On-board 5V regulator • Solderless breadboard
- RJ-11 jack for Dallas "Blue Dot Receptor" sockets
- 14-pin IDC connector for LCD
- iButton™ socket • Contrast pot for LCD
- Selector 4.7k ohm pull-ups or pull-downs

Part No.	Parallax No.	1	10
202294	45183	$78.95	$70.95

In-System Programming Kit



This unique development tool programs Scenix SX chips in-system & performs in-circuit source-level debugging. Supports every Scenix Semiconductor chip that is commercially available.

- Includes SX Key software, SX Tech Board, 2 SX 28AC/DP 50 MIPS chips, 1 Murata 50MHz resonator, printed manual, CD ROM, power supply and serial cable
- DB-9 serial connector connects to RS-232 port using serial cable
- 4-pin connector on other side of tool plugs into the SX's Vss, Vdd, OSC1 and OSC2 pins
- Windows® 95/98/NT compatible
- Size: 0.5" x 1.7"

See Page 10 for Microcontroller Chips

Part No.	Parallax No.	1	10
176583	45180	$179.95	$169.95
162958	45170 without debugger	59.99	54.99

50MIPS SX Microcontrollers

Part No.	Parallax No.	1	10
162940	SX18AC/DP (18-pin DIP pkg)	$4.95	$4.75
162931	SX28AC/DP (28-pin DIP pkg)	5.49	5.25

TechTools

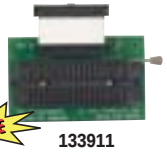
PIC16C5X/XX Programmer Pack

Version 5.0, Windows® Software

Programs, reads & verifies PIC16CXX devices!



168807



133911

- Supports PICs: 54, 55, 56, 57, 58, 620, 621,622, 61, 62, 63, 64, 65, 71, 72, 73, 74 & 84
- Requires 40-pin ZIF adapter (P/N 133911 below)
- Programmer can be upgraded and adapters available depending on PIC
- Documentation on CD-ROM
- Weight: 1.8 lbs.

Requires: IBM PC or compatible, serial port and Windows® operating system

SALE

Includes: PIC writer programming module, PIC writer serial protocol adapter, modular data cable, 12VAC @ 500mA power supply, PIC writer installation diskette, and Tech Tools CD-ROM

Part No.	Description	1	10
168807	PIC16CXX prog. pack	$199.95	$179.95
133911	40-pin ZIF adapter	44.95	39.99

Parallax's "Stamps In Class" Series Kits

Enabling Students to "Micro-Control" the World

Learn BASIC Stamp programming essentials from the experts. Each kit combines an educational book with the components needed to cover robotics, process control and microcontroller interfacing. The program emphasizes creative PBASIC programming in the classroom. For use with the "Board of Education" below.

Industrial Control



Industrial control text is an educational tutorial on process control with the BASIC Stamp. High voltage methods of process control (on-off, differential gap, proportional-integral-derivative) are demonstrated. Written by Marty Hebel and Will Devenport of Southern Illinois University.

- 34 piece kit with book
- Experience: moderate

Part No.	Parallax No.	1	10
176575	28156	$49.95	$44.95

Robotics





Build a BOE-BOT by adding a chassis, servo motors, power supply, and proximity sensor to your Board of Education (below). Experiments cover basic programming and servo control, sensor interfacing using an infrared LED and receiver, light following, and communication between BOE-BOTs.

- Experience: moderate
- 84 piece kit with book

Requires: BS2 starter kit (P/N 140071, pg 169)

Part No.	Parallax No.	1	10
170131	28154	$115.95	$104.95

Earth Measurement Kit



The Earth Measurements curriculum was created as a subsequent test to the "What's a Microcontroller?" guide. Learn new techniques and circuits with only minimal overlap between other texts. Topics introduced in this series are closed-loop feedback control systems, serial communications, use of the BASIC Stamp's EEPROM, calibration sensors, conductivity in water and the use of a sound transducer for human feedback.

Part No.	Parallax No.	1	10
202307	28153	$68.95	$61.95

Line Follower Module



Module comes preassembled and ready to attach to the BOE-BOT (P/N 170131) with a simple ribbon cable and male to male header. The module uses a multi-sensor array over which you have complete programmatic control, allowing you to develop line following algorithms that are very simple.

Part No.	Parallax No.	1	10
202340	29115	$69.95	$62.95

"Board of Education"



The BOE was designed in coordination with Parallax's educational customers to teach microcontroller programming and interfacing.

- Mechanically interlocked power supply to prevent dual connection of wall-pack and 9-volt battery
- DB9 connector for BS2-IC programming and serial communication during run-time
- P0 - P15 I/O pins, Vdd and Vss connections brought adjacent to 2" x 1-3/8" breadboard area
- Traces on top of the board show connections between BS2-IC and breadboard connections

More Training Boards on pages 90-91

Includes: Set of ten 10 color-coded 22 gauge wires

Part No.	Parallax No.	1	10
162536	28150	$54.95	$49.95
202331	BS2P40 adapter	24.49	21.95

PIC BASIC Programming and Projects



Newness Publications The BASIC language is introduced from square one, with simple code used to illustrate each of the most commonly used instructions. PIC BASIC is the simplest and quickest way to get up and running – designing and building circuits using a microcontroller. (210 pages, 2001) • Size: 6.1" x 9.2" • Wt.: 0.8 lbs.

Part No.	Description	1	10
200168	PIC BASIC Programming	$34.95	$32.95

GrowBot Kit



This robot may be programmed to follow a line, solve a maze, follow light, or communicate with another robot. It is built on a PCB with defined locations for electronic components. High-quality brushed aluminum chassis provides a sturdy platform for the servo motors and printed circuit board.

- I/O Components: LEDs, speaker, bumper, push button, photoresistors, resistors and capacitors
- Assembly tools needed: Soldering iron and solder, angled cutters, small Phillips screwdriver and 1/4" wrench • Time required: 5-6 hours • Object Detection: Wire bumper

Requires: Power Supply: One 9-volt for BASIC Stamp, 4 AAs for motor control (not included)

Includes: BASIC Stamp 2 module, software, serial cable, assembly instructions and BASIC Stamp Manual Version 2.0

Part No.	Parallax No.	1	10
162501	29100	$229.95	$206.95

Flex Sensor



- Maximum resistance: 30kΩ to 40kΩ, proportional to the degree of flexing or bending
- Nominal resistance: 10kΩ
- Applications: virtual reality data gloves, robotic, bio-metric, physics and engineering

Part No.	Description	1	10	100
150551	Flex sensor	$10.95	$9.95	$8.49

Robotic Arm Trainer Kit ▲ *109-piece kit*

Five Axis of Motion

Teaches basic robotic sensing and locomotion principles while testing your motor skills as you build and control the arm. This unit can be commanded or instructed through its five-switch wired controller with lights to grab, release, lift, lower, rotate wrist, and pivot sideways. Five motors and joints allow flexibility.



- Max. length outwards: 14.2"
- Max. height upwards: 20.1"
- Max. lifting capacity: 4.6 oz.
- Elbow moving range @ 135˚
- Wrist rotation clockwise or counter clockwise @ 340˚
- Rotates left to right at the base @ 350˚
- Grip opens to 2" wide
- Shoulder movement @ 120˚
- Weight: 4.5 lbs.



159345

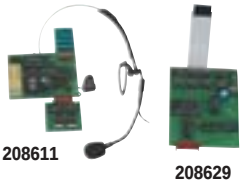
Build It Yourself!

Requires: 4 D batteries (not included)

Part No.	Description	1	10
157366	Robotic arm kit (unassembled)	$74.95	$67.49
159345	Robotic controller software (assembled)	84.95	76.49

Speech Recognition Kit & Speech Interface Kit ▲

Program the words you want the circuit to recognize, connect the interface kit to the main board and interface with the robotic arm kit. Now you can command movements to the robotic arm through speech. The heart of the speech recognition kit is the HM2007 IC wherein you can program 40 words @ 0.96 seconds word length or 20 words @ 1.92 seconds word length.



208611

208629

NEW

Images SI Inc.

208611: Can be used independantly

Part No.	Description	Pieces	1	10
208611	Speech Recognition Kit	42	$119.95	$107.95
208629	Speech Interface Kit	41	89.95	79.95

Robotic Arm PC Interface Kit ▲ *31-piece kit*

With a PC and the software provided, you can program this interface kit for the robotic arm to do a sequence of movements at precise steps or repeat the sequence.

Images SI Inc.

NEW

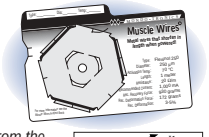


Includes: DB25 male to female cable & software diskette

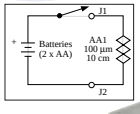
Part No.	Description	1	10
208637	PC Interface Kit	$69.95	$62.95

MONDO•TRONICS Flexinol Muscle Wires®

These unique nickel-titanium alloy Muscle Wires® actually shorten in length when electrically powered, and can lift thousands of times their own weight. • Length: 1 meter







How it works... *Pressing the switch lets power flow from the batteries through the Muscle Wire®, heating it and causing it to contract and raise the lever and lift the weight. When power is removed, the Muscle Wire® cools and relaxes, and the weight helps it return to its starting position.*

141348: Muscle Wires® Book & Deluxe Kit

- Kit includes one each Flexinol 100, 150 and 250 Muscle Wires® (below) and Project Book
- 3 meters of wire



Includes: Crimps and instructions

* *Multiply by 0.0098 to get force in Newtons* ** *Cycles per minute, in still air, at 20˚ Centigrade*

Part No.	Descrip.	Wire Dia. (microns)	Linear Resistance (ohm/m)	Typical Current (mA)	Deform Weight* (grams)	Recovery Weight* (grams)	Typical Rate**	Pricing 1	Pricing 10
141321	100LT	100	150	180	28	150	33	$14.49	$12.95
141874	150LT	150	50	400	62	330	20	14.95	12.95
160055	375LT	375	8	2750	393	2000	4	19.95	17.95

Part No.	Description	1	10
141348	Muscle Wires® kit	$59.95	$53.95

Obstacle Avoidance Robot Kit ▲ *107-piece kit*

Six crank motion legged robot utilizes an infrared light sensing system to find obstacles and maneuvers itself around them. This IR detection kit includes an infrared diode, photo diode, IC, 2 DC motors and all hardware.



Part No.	Description	Dimensions	Wt. (lbs.)	1	10
140821	Spider kit	12.0"L x 7.0"W x 3.5"H	1.2	$59.95	$53.95

Line Tracking Robot Kit ▲ *134-piece kit*

Watch as this robot follows a black line you specify. Utilizes infrared light to detect the line and control direction. This educational kit utilizes the same line follow principle of many industrial robots.



Part No.	Description	Dimensions	Wt. (lbs.)	1	10
140839	Line tracker kit	12.0"L x 7.0"W x 3.5"H	1.1	$49.95	$44.49

Rockit Robot Kits ○/▲

Explore the fundamentals of robotics with this informative and entertaining robot kit. An intelligent robot with a touch/sound sensor, if it comes in contact with an object or hears a loud noise, it automatically reverses, then turns left.



192567

- **192567:** Pre-assembled printed circuit board • Weight: 0.4 lbs.
- **199603:** Soldering required of PCB • Size: 4.5"L x 5.0"W x 3.5"H

Requires: 2 AA batteries (recommend P/N 151087, pg 168)

Part No.	Description	Pieces	1	10
192567	Rockit robot Beginner	60	$23.95	$21.55
199603	Rockit robot Expert	96	21.95	19.55

Deluxe Solar Power Car Kit ○ *32-piece kit*

This deluxe aerodynamic solar powered car is loaded with fun and features.



- Dual power: powerful 1.4 volt/350mA solar cell or AA battery • Multispeed transmission
- Attain high speed or low speed by repositioning gear
- Aerodynamically designed body
- Body can be painted or left clear to view mechanics
- Components can be used to create other projects • Overall body length: 8.8"

Part No.	Description	Wt. (lbs.)	1	10
147774	Triple action solar car kit	0.7	$39.95	$35.95

velleman Micro Bug Kits ■

A bright colored miniature bug shaped robot that is attracted to light.



200328

200336

- Two open chassis sub-miniature motors
- Adjustable light sensitivity that suits almost any light conditions
- LED "eyes" indicate driving direction
- Stops in total darkness
- Size: 4.0" x 2.4"

Requires: 2 AAA batteries (recommend P/N 185279, pg 168)

Part No.	Product No.	Description	Pieces	1	10
200328	MK127	Running	26	$18.95	$16.95
200336	MK129	Crawling	29	21.45	19.35

MONDO•TRONICS Electric Pistons™

Deluxe 5 Pack

The Electric Piston is a shape memory alloy actuator that pulls with up to one pound of force and contracts by 20mm. Typical activation requires one volt at five amps for two seconds. Plus, mount several pistons in parallel for more strength, and in series for longer strokes.





- 1 volt @ 5 amps

Includes: Five pistons, battery, leads and plans for four complete projects

Part No.	Description	1	10
141903	Electric piston pack	$39.95	$34.95

Part Number Color Code: New Sale Refurbished Closeout

High-Efficiency Robotic Servo

Excellent power-to-weight ratio for robotic projects.



- Supply voltage: 4.8-6 volts
- Torque: 49 oz.-in. @ 4.8V
- Speed: 16 seconds to 60˚
- Can be operated by P/Ns 153648, 151001, pg 40 and 157059, see right
- Size: 0.8"W x 1.4"D x 1.6"H

Part No.	Mfr. Cross Ref.	Description	1	10
157067	14500	Robotic servo	**$19.95**	**$17.95**

Micro Robotic Servo

Perfect size for any micro robotic project such as robotic fingers or pincers.



- Power supply voltage: 4.8-6 volts
- Torque: 38 oz.-in.
- Speed: 10 seconds to 60˚
- Can be operated by P/Ns 153648, 151001, pg 40 and 157059, right • Size: 1.2"L x 0.48"W x 1.2"H

Part No.	Description	1	10
166369	Micro robotic servo	**$39.95**	**$35.95**

Giant Robotic Ball-Bearing Servo

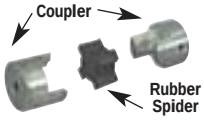
Extremely powerful! Perfect for large robotic projects where power is a must.



- Power supply voltage: 4.8-6 volts
- Torque: 161 oz.-in.
- Speed: 19 seconds to 60˚
- Can be operated by P/Ns 153648 & 151001, pg 40 and 157059, see right

Part No.	Description	1	10
166351	Giant robotic servo	**$49.95**	**$44.95**

Spider Couplers



162288 (Coupler); 162000 (Spider)

- Used with motors
- 1 set screw/hub
- Hub OD: 0.625" Dia.
- Hub length: 0.56"
- Parts sold individually

Part No.	Description	1	10	50
162288	.125" (3.18 mm) hub	**$1.19**	**$1.05**	**$.95**
161998	.197" (5.00 mm) hub	**1.09**	**.89**	**.59**
162270	.250" (6.35 mm) hub	**1.19**	**1.05**	**.95**
162000	Rubber spider	**.89**	**.79**	**.69**

Climax Spider Shaft Couplers



106614 106606 106622 138288

106614/106606:

- 1 set screw/hub
- Hub OD: 0.625" Dia.
- Hub length: 0.56"

SALE

138288:

- 2 set screws (10-32 x 1/8) • Size: 0.75"L x 0.5"D

Part No.	Description	1	10	100
106614	.125" spider hub	**$.85**	**$.65**	**$.39**
106606	.250" spider hub	**.75**	**.55**	**.39**
106622	Rubber spider	**.75**	**.68**	**.61**
138288	.250" sleeve coupler	**3.95**	**3.49**	**3.15**

Radio Control System



- 75MHz • 1/4 mile range
- 2-channel proportional operation
- HP-2RNB mini AM receiver
- 2 HS-303 standard servos
- Size: 6.0"L x 5.5"W x 2.0"H
- Weight: 1.5 lbs.

Requires: 12 AA batteries

Part No.	Description	1	10
157059	Radio control system	**$89.95**	**$79.95**

Robot Drive Wheels



- Extremely high traction foam rubber compound
- 2 hubs: 1 set screw locking; 1 non-locking
- Size: 2.5"Dia. x 2.0"W

Part No.	Description	1	10
157227	Drive wheels (2 pc set)	**$27.95**	**$24.95**

8-Pitch Gears and Gear Set

SALE



162093 162392 131801

- Works with DC motors with 0.08" shaft diameter
- Heavy-duty plastic construction • Pitch: 0.125"
- Bore size: 0.154" • Material: polyethylene resin

#**162392:** 0.15" bore to 0.070" bore

†**131801:** 20-piece gear set includes 2 each of the following: T10, T20, T30, T40, T50 and 10 bushings

✻ **Prepackaged: please order in increments of 10**

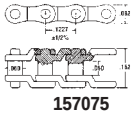
Part No.	Mfr. Cross Ref. No.	Description	Shaft Bore	O.D.	Press Fit Shaft Dia.	Gear Dia.	1	10	100
162069	T10	10 teeth	0.151"	0.48"	0.156 (5/32)"	0.457"	**$.69**	**$.62**	**$.59**
162077	T20	20 teeth	0.151"	0.875"	0.156 (5/32)"	0.855"	**.69**	**.62**	**.56**
162085	T30	30 teeth	0.151"	1.27"	0.156 (5/32)"	1.239"	**.69**	**.62**	**.56**
162093	T40	40 teeth	0.151"	1.67"	0.156 (5/32)"	1.634"	**.46**	**.41**	**.37**
162106	T50	50 teeth	0.151"	2.07"	0.156 (5/32)"	2.016"	**.69**	**.52**	**.36**
162392	BUSH1#	Bushing	0.075"	—	0.078 (5/64)"	0.160"	✻	**.24**	**.22**

Part No.	Mfr. Cross Ref. No.	Description	1	10	50
131801	GA1†	Gear set – 20 piece (see description above)	**$7.99**	**$7.29**	**$6.49**

16-Pitch Sprocket Set and Chain



157075



157075



168276

- Operates in high humidity and corrosive environments
- Chain links can easily be added or removed to adjust total length
- Chain tension load: 2.0 lbs.

168276: 14-piece sprocket set includes 1 each of the following: 8, 9, 10 teeth at ⅛" bore size; 12, 15, 16, 18, 20, 24, 30, 32, 36, 40 and 48 teeth at ¼" bore size

Part No.	Mfr. Cross Ref. No.	Description	1	10	25
157075	C1227	Drive chain (12" long)	**$9.95**	**$8.95**	**$7.95**
168276	8890#	Sprocket set - 14 pieces (see description above)	**24.95**	**21.95**	**19.95**

Hub and 48-Pitch Gear Set



157104



168284

- Low coefficient of friction requires little or no lubrication
- Residual stress removed by annealing process

168284: 12-piece gear set includes 1 each of the following: 10 teeth at 3/32" bore size; 14 and 16 teeth at ⅛" bore size; 20, 24, 30, 36, 44, 54, 66, 84 and 100 teeth at ¼" bore size

Part No.	Mfr. Cross Ref. No.	Description	1	10	25
157104	9999	1/4" bore aluminum mounting hub w/ set screws	**$4.95**	**$4.49**	**$3.95**
168284	8892#	Gear set - 12 pieces (see description above)	**39.95**	**34.95**	**31.95**

OWI®

Selectable Gear Box Kit ■

Great 35-piece kit for learning about gear ratios or to add a gear box to your robot project. See-through case has gear ratios from 6.8:1 to 807.93:1.

SALE



Part No.	Description	Dimensions	1	10
145509	Selectable gear box kit	2.5"L x 1.1"W x 1.5"H	**$12.99**	**$11.69**

Phone 1-800-831-4242 Online www.Jameco.com

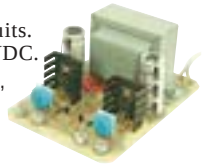
Order Anytime 24x7x365

Fax 1-800-237-6948



Dual Adjustable Regulated Power Supply Kit

■ *48-piece kit*



Build a dual adjustable power supply for your circuits. Outputs positive-negative voltages from ±5 to ±15VDC.

- Adjustable positive and negative supplies ±5 to ±15VDC, 175mA – 750mA per supply
- 120VAC input
- LED on indicator
- PC board construction

Includes: Components and hardware

Part No.	Mfr. Cross Ref. No.	Dimensions	Wt. (lbs.)	1	10	25
20626	JE215	5.1"L x 3.5"W x 2.0"H	2.1	**$22.95**	**$20.49**	**$18.49**

DC Voltage Monitor Kit ○ *46-piece kit*



If battery status is important, you need this kit. It uses 7 LEDs to monitor 12VDC in 1V, 1/2V, or 1/4V steps. Monitor 8V or 5V in 1/4V steps. Great for boats, motor homes, model planes or race car Ni-Cads.

Part No.	Product No.	Dimensions	1	10
181833	VM-1	2.7"L x 1.3"W	**$8.95**	**$7.95**

1 Amp Power Supply Kit ■ *12-piece kit*



Provides a regulated voltage adjustable between 1.2 and 35 volts at 1 amp. LM317 regulator gives you remarkably better ripple and regulation characteristics than conventional regulators. Chip includes current limiter and thermal overload protection.

- Output current max.: 1.5A
- Max. dissipation: 15W (cooled)
- Max. input voltage: 40V

Requires: 25.2VCT @ 2A quick connect power transformer (recommend P/N 102103 or equivalent, pg 54)

Part No.	Product No.	Dimensions	1	10	25
117621	K1823	2.1"L x 2.1"W	**$12.95**	**$11.65**	**$10.49**

Relay Controller Kit

Universal Relay Card Kit ▲ *64-piece kit*



An electronic controller that switches higher currents while providing insulation between the controller and the controlled devices.

Shown with 16 relays. Only 8 relays included

- Relay Output: Maximum 5A/220VAC
- TTL or CMOS inputs
- Contact Voltage: 12VDC/250mA

Requires: 220 or 125VAC power source

128910

Part No.	Product No.	Dimensions	Wt. (lbs.)	1	10
128910	K6714	8.3"L x 5.9"W	1.8	**$67.95**	**$61.95**
144186	VR15M121C relay (JZC-22F)		0.028	**3.25**	**2.92**

ABS Speedy Enclosures



18913

Will not crack or split when drilled or punched. PCB mounting slots on all sides. Lid has a lip for precision fit (adds 0.4" height). Complete with four screws and lid. All sizes below are for interior dimensions.

Part No.	Mfr. Cross Ref. No.	Size (L x W x D)	Wt. (lbs.)	1	10	50	100
18921	H2855	3.1" x 2.0" x 0.9"	0.1	**$2.69**	**$2.39**	**$2.19**	**$1.99**
18913	H2853	4.9" x 2.5" x 1.5"	0.2	**2.79**	**2.49**	**2.25**	**1.99**
18892	H2851	6.0" x 3.5" x 1.9"	0.4	**3.39**	**3.05**	**2.75**	**2.45**
18905	H2852	7.5" x 4.3" x 2.3"	0.5	**5.35**	**4.59**	**4.09**	**3.35**

Motor Mind B Module



Motor control supports one or two line serial communication stream. DC motors with operating voltages as great as 30VDC and continuous currents of 2A can be controlled. An on board frequency counter has a range of 0–65,528Hz. Motor speed (254 steps) and direction can be controlled. Motors with tachometers or encoders may make use of the automated speed control function.

Part No.	Description	1	10
143802	9-pin motor mind B module	**$28.95**	**$25.95**

DC Motor Speed Control Kit

■ *35-piece kit*



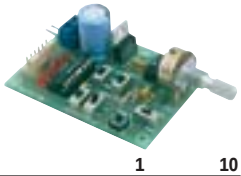
- This kit uses Pulse Width Modulation to vary the speed of a DC motor and maintain torque
- For motors up to 100VDC/5A max.

Requires: 5-16VDC supply (recommend P/N 114825, pg 61)

Part No.	Description	Dimensions	1	10
127829	Motor control kit	3.6"L x 2.3"W x 1.2"H	**$19.95**	**$17.95**

Unipolar Stepper Motor Driver Kit

■ *29-piece kit*



- Will drive unipolar stepper motors rated up to 6-30VDC @ 1.25A
- Drives 5, 6 or 8 lead unipolar stepper motors
- Onboard 5VDC regulator

Part No.	Description	Dimensions	1	10
139109	Stepper motor	2.6"L x 1.9"W x 1.0"H	**$29.95**	**$26.95**

DC to Pulse Width Modulator Kit ▲ *40-piece kit*

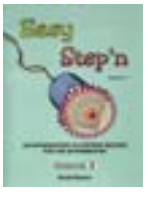


The circuit converts a DC voltage into a series of pulses, such that the pulse duration is directly proportional to the value of the DC voltage.

- PWM range: 0 to 100%
- PWM frequency: 100Hz to 5kHz (adjustable)
- Operating voltage: 8 to 35VDC
- Min. consumption: 35mA
- Max. output current: 6.5A
- Efficiency: better than 90% at full load
- Adjustable sensitivity: 2.5 to 35VDC

Part No.	Product No.	Dimensions	Wt. (lbs.)	1	10	25
120539	K8004	3.3"L x 1.9"W x 1.8"H	0.5	**$22.95**	**$20.49**	**$18.95**

Easy Step'n Version 1.0 Book



Square 1 Publication – This book explains how to determine important electrical and mechanical specifications of a motor using simple, easy to build test equipment. It also provides instructions on how to design and build microcontroller-based control systems for stepper motor applications (flow charts and code examples included), and driver circuits needed to switch the power applied to stepper motors. (199 pages, 2001)

- 8.5" x 11"
- Weight: 1.3 lbs.

Part No.	Description	1	10
199700	Easy Step'N	**$34.95**	**$32.95**

30-Day Money-Back Guarantee

If for any reason you're not completely satisfied with your purchase, we'll take it back!

Details on page 181

Part Number Color Code
New Sale Refurbished Closeout

velleman Liquid Level Controller Kit ▲ 73-piece kit

Controls the level of any container of liquid. Can replace the liquid sensors with temperature or light sensors for corresponding use.



- Alarm signal provided for desired applications

Requires: 12-14VAC @ 300mA minimum power supply (P/N 10081, pg 60)

Part No.	Product No.	Dimensions	Wt. (lbs.)	1	10
129154	K2639	4.1"L x 2.4"W x 1.0"H	0.5	$21.95	$19.95

velleman Water Leak Alarm Kit ● 7-piece kit

Alarms you of water overflows and leaks!



- Water sensor can be placed at a distance by cutting the board and using wires for connection
- Incorporated loud alarm buzzer

Requires: 9VDC battery (P/N 151095, pg 168)

Part No.	Product No.	Dimensions	Wt. (lbs.)	1	10
157315	MK108	2.8"L x 1.8"W	0.1	$10.95	$9.95

velleman Parking Radar Kit ■ 55-piece kit

Parking in tight places can be difficult, but this unit can tell you when you have come within an adjustable preset distance of the object behind you.



- Detection range: 5cm – 1.5m; angle: 5°
- Transmitter frequency: 40kHz
- PCB size: base (4.9"L x 1.9"W) sensor (3.8"L x 1.1"W)

Requires: 10-15VDC @ 16mA max (recommend P/N 100095, pg 61) or auto power plug (recommend P/N 115001, pg 66)

Part No.	Product No.	1	10	25
129120	K3502	$44.95	$39.95	$34.95

Ultrasonic Motion Detector Kit ■ 49-piece kit

Detect Motion / movement from 13 to 23 ft. away and trigger an alarm with this kit.



- 2 boards: one with matched pair of ultrasonic transducers to detect motion from 13 to 23 ft. away; 2nd board contains crystal controlled oscillator and all circuits
- Switchable latch, red LED indicator
- Solder pad output to drive external relay or circuits
- Size: main board: 2.8"L x 2.0"W x 0.8"H; transducer board: 2.8"L x 0.6"W x 0.9"H

Requires: 9V battery (recommend P/N 151095, pg 168)

Part No.	Description	1	10
125090	Ultrasonic alarm kit	$29.95	$26.95

Senix Distance Sensor Modules

Sends out a sound wave 20 times per second and calculates the distance based on the time differential between send and receive signals. The distance is represented by an output voltage from 0 to 10VDC (P / N 134105) or RS232 signal (P / N 151482).



134105

- Sensing range: 4" to 60"
- Sensor diameter: 1.8"
- Board size: 2.8"L x 1.8"W x 0.9"H
- One-year warranty

Requires: 15 to 24VDC @ 40mA (not included), recommend P/N 114825, pg 61

134105: • Output voltage: 0-10VDC
• Each 1VDC increment = 5.6" (e.g.: 1VDC output = 9.6")
151482: • RS232 output

Includes: Disk and computer cable

Part No.	Description	Wt (lbs.)	1	10
134105	Sensor – voltage output	0.2	$159.95	$143.95
151482	Sensor – RS232 output	1.0	179.95	161.95

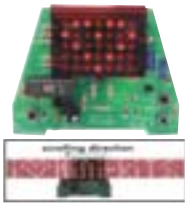
Over 99% of our products are in stock!

We'll Send It Today!

Just place your order by 6PM EST for same business day shipment

velleman Scrolling Message Kit ■ 76-piece kit

Create your own scrolling message with this 35-LED graphic display kit. Press "SET" to change a particular character, "UP or DOWN arrow" to select the character, and end your scrolling message with the "<" character.



- 35-LED display
- Maximum 16 characters
- Adjustable scrolling speed

Requires: 9 to 12VDC @ 20mA (recommend P/N 100095, pg 61)

Part No.	Product No.	Dimensions	Wt. (lbs.)	1	10
200310	MK124	3.5"L x 2.6"W x 1.8"H	0.2	$24.95	$22.45

velleman 3-Channel Light Organ Kit ■ 80-piece kit

Add a 3-channel dancing light display to your music. Each channel displays a different range of sound.



- Frequency ranges are adjustable
- Line or microphone input
- Maximum load 2A per channel
- Each output has individual sensitivity control

Part No.	Product No.	Dimensions	Wt. (lbs.)	1	10
131684	K8017	6.7"W x 5.6"D x 1.7"H	1.2	$59.95	$53.95

velleman Stroboscope Kit ▲ 19-piece kit

Make your own snapshots and "lightning" light effects. Flash frequency adjustable from 2 - 20Hz.



- Input: 110VAC

Part No.	Product No.	Dimensions	Wt. (lbs.)	1	10
117639	K5300	3.5"L x 2.6"W	0.5	$18.95	$16.95

velleman Entertainment Light Computer Kit

▲ 122-piece kit

This kit is a unique light producer for entertainment and display applications.



SALE

- 16 programs and 7 LED outputs
- Supply voltage for lamps: 24-240VAC

Requires: 7.5-9VAC @ 250mA power supply (P/N 100061, pg 60)

Part No.	Product No.	Dimensions	Wt. (lbs.)	1	10
127600	K5201	5.4"L x 3.1"W	0.6	$35.75	$32.19

velleman Flashing LED Sweetheart Kit

■ 46-piece kit

This kit shows a beating heart. Great for decorations!



- Power consumption: 8mA

Requires: 8 to 15VDC wall transformer (P/N 100095, pg 61) or 9VDC battery (P/N 151095, pg 168)

Part No.	Product No.	Dimensions	Wt. (lbs.)	1	10	25
147555	MK101	2.5"L x 2.4"W x 1.2"H	0.1	$11.95	$10.95	$9.95

velleman Flashing LED Kit ■ 23-piece kit

Activates 2 flashing LEDs for applications such as model constructions. Adjustable flashing speed by potentiometers.



- 5.5" wire w/ 9V battery connector
- Minimum consumption: 4mA

Requires: 9VDC battery (P/N 151095, pg 168)

Part No.	Product No.	Dimensions	Wt. (lbs.)	1	10	50
147580	MK102	1.3"L x 1.4"W x 0.6"H	0.1	$6.95	$6.25	$5.59

Accelerometers and Interface

141591 1-Axis and 141575 3-Axis Accelerometers

SALE



141575

- Dynamic range and excellent frequency response
- Acceleration range: ±4g
- Shielded cable: 2'L pigtail • Size: 1.9"L x 1.0"W x 0.8"H

Requires: 5VDC power supply (not included – recommend P/N 164101, pg 60)

141583: Digital Accelerometer Interface



141583

- Measures acceleration, impact, tilt, vibration, etc.
- Simple digital interface for 1-axis and 3-axis
- Plugs into any RS-232 port @ 38.4k baud
- 200Hz max. sampling rate • Size: 3.0"L x 2.5"W x 1.3"H

Requires: DB9 male to female cable (recommend P/N 25700, pg 144)

Includes: User friendly graphical software and 9VDC @ 500mA power supply

Part No.	Description	Axis	Current	1	10
141591	CXL04M1	One	8mA	$99.95	$89.95
141575	CXL04M3	Three	24mA	249.95	219.95
141583	Digital interface card			249.95	224.95

Accelerometer Evaluation Board

Single Axis



Evaluation board for ADXL105, single axis, 5g accelerometer.

Part No.	Product No.	Description	1	10
177295	ADXL105EB	Single axis	$49.95	$44.95

Accelerometer Evaluation Boards

Dual Axis

Evaluation board for the ADXL202, dual axis, 2g accelerometer.



177308

177308: features RS-232 interface to connect to PC serial ports. Also includes software to display real time acceleration data.

Part No.	Product No.	Description	1	10
177287	ADXL202EB	Dual axis	$49.95	$44.95
177308	ADXL202EB-232	w/ RS-232	119.95	107.95

Precision Navigation, Inc. Vector 2X Compass Module



- 2˚ accuracy, 1˚ resolution • 5Hz sampling rate
- 3-wire serial output format (compatible with Motorola SPI and National Microwire) • Hard iron calibration
- Pin selectable BCD or binary output format
- Raw uncalibrated magnetometer output optional
- Master or slave capability for data clock generation

Requires: Power supply 5V @ 10mA (recommend P/N 112070, pg 60)

Part No.	Description	1	10	25
126703	Vector 2X module	$49.95	$44.95	$39.95

Metal Detector ■ *22-piece kit*



- Proximity range adjustable to 8cm
- LED indicator; can use a buzzer as an option (P/N 105822, pg 0) • Dimensions: 2.1"L x 2.1"W

Requires: 9V battery (recommend P/N 151095, pg 168)

Part No.	Product No.	Description	1	10	25
129091	K7102	Metal Detector	$12.99	$11.69	$10.59

Function Generator Kit ■ *21-piece kit*

Sine, Triangle and Square Wave



Great for prototyping electronic circuits, whether analog or digital! Produces sinusoidal, triangular, and square waveforms at frequencies continuously variable from 1Hz to 100kHz.

- 21-piece kit (chip, components, PC board, hardware)

Requires: 12VDC supply or ±6VDC split supply (recommend P/N 20626, pg 173)

Part No.	Mfr. Cross Ref. No.	Dimensions	1	10	25
20685	JE2206	4.1"L x 1.5"W	$24.95	$22.95	$19.95

Signal Generator Kit ● *34-piece kit*

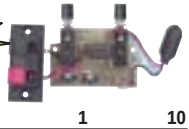


- Signal output: sine, triangle, square, and integrator wave (jumper selectable)
- Signal frequency: about 1KHz (fixed)
- Output level: adjustable from 0 to 100mVrms
- Size: 2.3"L x 1.7"W x 1.3"H

Part No.	Product No.	Description	1	10
200281	MK105	Signal Generator	$12.99	$11.69

Capacitance Adapter Meter Kit ■ *27-piece kit*

SALE



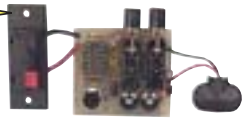
- Measures capacitance range from 2pF to 2µF
- Works with multimeter w/ 2V range reading and 10MΩ input impedance see pg 115

Requires: 9V battery (recommend P/N 151095, pg 168)

Part No.	Description	Dimensions	1	10
158001	CA-1 capacitance adapter	2.0"L x 1.8"W	$10.65	$9.59

Inductance Adapter Meter Kit ■ *22-piece kit*

SALE



- Low inductor range: 3µH to 500µH
- High inductor range: 100µH to 5mH
- Works with multimeter w/ 2V range reading and 10MΩ input impedance see pg 115

Requires: 7.5 to 15VDC power supply (recommend P/N 151095 9V battery, pg 168)

Part No.	Description	Dimensions	1	10
158027	IA-1 inductance adapter	2.5"L x 1.7"W	$13.49	$12.15

LCD Development Kits

Stand-Alone DVM Module Board





Display

Software

Designed for simple programming and parameter changing. With its on-board ALD500 and ALD523 chipset, running on a standard 5VDC power source, you have an economical, high-resolution digital voltmeter. Interfaces with most industry standard 16 x 2 LCD / VFD character display modules via 14-pin direct cable connection. With its on-board 1K EEPROM, you can calibrate and program the unit through a parallel port.

- 3½ to 6½ digit display resolution
- Up to 7 full digits plus sign (+/-9999999) display
- For embedded system applications
- Up to 3 sets of full scale display ranges • Board size: 3.0"L x 3.0"W
- Provisions to convert/scale any DC voltage to user-defined DISPLAY parameters
- Extra port to convert/scale serial digital input date to user-defined DISPLAY parameters • Software/instructions diskette

NEW

- Compatible with P/N 171715 (pg 35)

Part No.	Product No.	1	10
208653	MB203A2V	$109.95	$104.95

Parallel Port Interface DVM Module Board



Single and timer-activated measurement modes turn your PC or laptop into an instant data acquisition system. Using software and documentation provided on diskette, you can change sample parameters, display settings, and store measurement data.

- No external power needed
- Direct full scale analog input range: ±20.000VDC
- 3½ to 6½ digit measurement display
- Self-healing measurement setup configuration during computer power up
- On-the-fly measurement parameters manipulation
- Automatic hardware timing synchronization
- Built-in adaptive smart-noise filtering
- User defined multiplier factor and multiplier unit • Board size: 3.2"L x 2.5"W
- Dual screen modes: engineering (full screen), and meter (half-screen)
- Noise/count measurement mode with built-in statistics capability

NEW

Part No.	Product No.	1	10
208979	MB201A20V	$99.95	$94.95

Part Number Color Code
New Sale Refurbished Closeout

1 Second to 3 Minute Timer Module

By operating a button, the relay will be activated for the selected time.

- Output contact rating: 5A @ 200VAC
- Size: 3.0"L x 1.7"W x 1.2"H

Requires: Power supply 12V @ 50mA (recommend P/N 100095, pg 61)



Part No.	Description	1	10	25
147871	I-1 timer	$19.95	$17.95	$15.95

3 Second On to 1 Minute Off Cyclic Timer Module

By triggering the timer, the contacts will be engaged. Once this time has expired, the relay will remain in the off state for 3-60 seconds. It then restarts, repeating the on and off process until power is disconnected.

- Output by relay
- Contact rating: 5A @ 200VAC
- Size: 3.0"L x 1.7"W x 1.2"H

SALE

Requires: Power supply 12V @ 50mA (recommend P/N 100095, pg 61)



Part No.	Description	1	10	25
147846	I-10 timer	$22.49	$20.29	$19.39

velleman Remote Control by Telephone ▲ *116-piece kit*

- Possible to turn on or off up to three devices (switching lights on-off; check alarm systems; water heater on-off; garage doors)
- Check conditions of a switch (open or closed)
- Protected by a user-defined code
- Pick up after 3 or 8 rings (selectable)

Requires: 12VAC @ 300mA (recommended P/N 101258, pg 60)

Includes: Relay for one output (10A/250VAC)



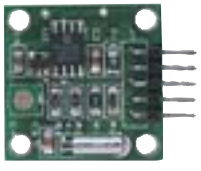
Part No.	Product No.	Dimensions	Wt. (lbs.)	1	10
120678	K6501	4.1"L x 5.1"W	0.7	$69.49	$62.59

Clock Kits

Pocket Watch B Module

Contains a real time clock, calendar and advanced timing features. Keeps track of seconds, minutes, hours, days, months, and years.

- For use with P/N 130892 - BS2-IC, pg 169
- Standard TTL • Easy-to-use 1 or 2 wire interface
- Easy-to-use SIP package
- Four types of user configurable alarms
- Leap year compensation
- Externally accessible, precision timebase • One-year warranty

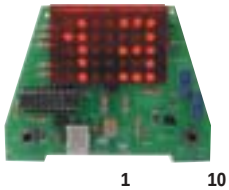


Part No.	Description	1	10
145630	Pocket watch B module	$32.95	$29.95

velleman Scrolling Clock Kit ■ *36-piece kit*

Animated rolling time and date display. Select hours, minutes, month or day with the "SELECT" button and enter values with "SET" button.

- 35-LED display • Size: 2.6"L x 3.5"W x 1.8"
- Time display in 12-hour or 24-hour mode
- Power required: 9VDC to 12VDC @ 20mA



Part No.	Product No.	1	10
200301	MK123	$24.95	$22.45

velleman DC Controlled Dimmer Kit ▲ *37-piece kit*

This circuit is ideal for replacing an existing dimmer switch; can be used in a control application via P/N 128928 interface board, below.

- Supply voltage: 110VAC or 220-240VAC, 50 or 60Hz
- Can be used for 24VAC • DC control voltage: 0-10VDC
- Maximum control current: 2.25mA @ 12V



Part No.	Product No.	Dimensions	1	10	25
128901	K8003	3.0"L x 2.0"W x 1.8"H	$23.95	$21.55	$19.49

Light Sensitive Relay Kit ■ *20-piece kit*

Build a stable and advanced circuit that uses light to control a SPDT 10A relay.

- Dimensions: 2.4"L x 1.3"W x 1.0"H

Requires: 12VDC power supply (recommend P/N 100095, pg 61)



Part No.	Description	Wt. (lbs.)	1	10	25
136223	Light relay kit	0.1	$12.49	$11.19	$9.99

Computer Control Interface Kit ▲ *301-piece kit*

Connects to printer port without interruption of the printer. Works well in control applications such as the DC dimmer (P/N 128901, top) and infrared transit/receiver (P/Ns 120555 and 120547, right).

- 16 I/Os with opto coupler
- Analog outputs: eight 6-bit (64 steps), one 8-bit (256 steps)
- Analog inputs: four 8-bit (256 steps)
- Full opto-isolation with computer
- 3.5" driver disk w/ routines in C++, QBASIC, Turbo Pascal

velleman

SALE

Requires: DB25 cable (P/N 65787, pg 144)



Part No.	Product No.	Dimensions	Wt. (lbs.)	1	10
128928	K8000	9.3"L x 5.3"W	1.7	$139.95	$125.95

Kit Accessories

ABS Speedy Enclosures

Will not crack or split when drilled or punched. PCB mounting slots on all sides. Lid has a lip for precision fit (adds 0.4" height). Complete with four screws and lid. All sizes below are for interior dimensions.



Part No.	Mfr. Cross Ref. No.	Size (L x W x D)	Wt. (lbs.)	1	10	50	100
18921	H2855	3.1" x 2.0" x 0.9"	0.1	$2.69	$2.39	$2.19	$1.99
18913	H2853	4.9" x 2.5" x 1.5"	0.2	2.79	2.49	2.25	1.99
18892	H2851	6.0" x 3.5" x 1.9"	0.4	3.39	3.05	2.75	2.45
18905	H2852	7.5" x 4.3" x 2.3"	0.5	5.35	4.59	4.09	3.35

For additional enclosures to go with your kits see pages 95 - 96

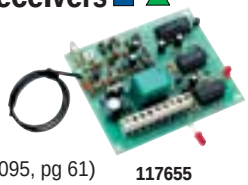
For Books to Accompany your Kits see our Complete Selection on pages 165 - 167



Opening an account is easy!! **Corporate Customers** Call 1-800-831-4242 for details today

Infrared and RF Code Lock Transmitters and Receivers ■ ▲

- Use for car alarms, garage doors, door locks, lighting control, etc. • Over 8000 selectable codes
- Use several transmitters with one receiver
- Receivers feature relay output (10A change-over or pulse contact)



117655

Requires: Transmitter:12V battery type V23G; receivers: 12-16VDC @ 100mA (recommend P/N 100095, pg 61)

Specifications:

Transmitter	117647	117647	134543
Transmission	RF	RF	IR
Channels	2-ch	1-ch	1-ch
Range	100'	100'	23'
Experience	expert	expert	novice
Use w/ receiver	**173235**	**117655**	**134551**

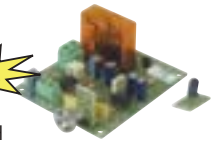


134543

Part No.	Description	Kit Pieces	Wt. (lbs.)	1	10
117647	K6706 2-ch transmitter (RF)	29	0.3	**$16.95**	**$14.95**
173235	K6727 2-ch receiver (RF)	75	0.5	**39.95**	**35.95**
117655	K6707A 1-ch receiver (RF)	75	0.5	**28.95**	**25.95**
134543	K6708 1-ch transmitter (IR)	16	0.3	**13.95**	**12.49**
134551	K6709 1-ch receiver (IR)	66	0.5	**28.95**	**26.95**

Infrared Switch Module

SALE



Produces an infrared beam, which when obstructed automatically connects the load.

- Output relay rated: 5A @ 200VAC
- Maximum range 3 meters • Size: 2.8"L x 2.2"W x 1.2"H

Requires: Power supply 12V @ 50mA (recommend P/N 100095, pg 61)

Part No.	Description	1	10	25
147811	RJ-1 photocell	**$31.49**	**$28.29**	**$25.39**

15-Channel Infrared Transmitter & Receiver ■

- Applications: remote on-off switch, alarms, garage door opener, etc.
- 15 independent channels
- Transmitter/receiver range: ±30 meters



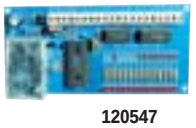
120555

120555: Transmitter

Requires: 9VDC battery (recommend P/N 151095, pg 168)

120547: Receiver

- Each output can be a change-over or pulse contact switch • Output: 50VAC @ 500mA max.
- PCB dimensions: 2.8"L x 5.7"W



120547

Requires: 8-14VDC (recommend P/N 100095, pg 61 or 129314, pg 62)

Part No.	Description	Kit Pieces	Wt. (lbs.)	1	10
120555	K6710 15-ch transmitter	37	0.8	**$64.95**	**$58.39**
120547	K6711 15-ch receiver	76	0.5	**44.95**	**39.95**

Electronic Dice Kits

Single and Dual Electronic Dice Kits

Board games provide an excellent source of entertainment. However, the dice can be a constant source of distraction: they fall off the table, allow cheating, results may not be seen properly and so on. There can be no doubt at all about the result displayed on this electronic dice module, and cheating is out of the question. Displays are switched off automatically after 30 seconds to save battery power. Rolls out slowly when releasing the push button.



200299

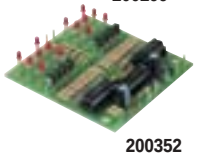
200299: Single die

- 35-piece kit • Experience level: Beginner

200352: Dual dice

NEW

- Two fully independent dice, at your choice you can play with one or two dice.
- 85-piece kit • Experience level: Intermediate



200352

Part No.	Product No.	Dimensions	Weight	1	10
200299	MK109	2.4"L x 1.7"W	0.2 lbs.	**$9.95**	**$8.95**
200352	K3400	3.0"L x 2.8"W	0.5 lbs.	**18.95**	**16.95**

Infrared Remote-Control Receiver Modules



139889



131908



165008

SALE



176541

- Commonly used in TVs, VCRs, audio equipment, car stereos and home computers that receive signals or data via infrared
- Single unit module which incorporates a PIN diode & a receiving preamplifier IC
- Excellent mechanical strength and electrical stability
- 940nm wavelength • Size: 0.6"L x 0.6"W x 0.5"H

Part No.	Description	Voltage Input	1	10	100	1000
139889	37.9kHz, top view	5VDC @ 2mA	**$2.95**	**$2.49**	**$1.95**	**$1.49**
131908	38.0kHz, side view	5VDC @ 2mA	**2.95**	**2.49**	**1.95**	**1.49**
165008	40.0kHz, top view	5VDC @ 5mA	**2.95**	**2.75**	**2.25**	**1.95**
176541	56.8kHz, side view	5VDC @ 2mA	**1.95**	**1.75**	**1.25**	**.99**

Infrared Transmitter & Receiver Kit ○ *26-piece kit*



Transmit a 40kHz modulated I-R signal to a distance of 6' to 8'. Can be used as a remote switch to turn objects OFF and ON by infrared. The IR receiver will only receive 40kHz modulated infrared light. You can configure the output for normally ON or normally OFF operation. This allows you to use it as a security sensor or as a remote control switch. You can use the receiver to test TV or VCR remote controls.

- Transmitter size: 1.0"L x 0.8"W • Receiver size: 1.4"L x 1.2"W

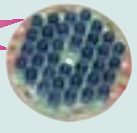
Requires: 6 to 15VDC battery (recommend P/N 151095, pg 168)

Part No.	Mfr. Cross Ref. No.	Description	1	10
177092	IR-2	Transmitter/receiver	**$24.95**	**$22.49**

IR LED Illuminator Kit ○ *41-piece kit*

- Improve low-light camcorder and CCD camera images without visible light
- 36 high powered infrared LEDs
- At 24' the beam is approximately 3.5' across

Ideal for CCD Cameras



Requires: 12-15VDC power supply (recommend P/N 114825, pg 61)

Part No.	Description	Dimensions	1	10	25
157964	IR illuminator kit	2" Dia.	**$14.95**	**$13.49**	**$11.95**

See the yellow highlighted items.

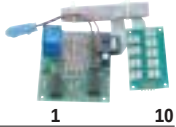
Special Jameco Values!

Details on Page 5

Electronic Locks

Electronic Combination Lock ■ *19-piece kit*

- Programmable 4-digit combination lock with separate 9 touch-pad board
- Output: 240VAC 12A relay controls external loads

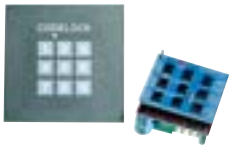


Requires: 9V battery (P/N 151095, pg 168)

Part No.	Description	Dimensions	1	10
125129	Lock kit	3.0"L x 2.5"W x 1.0"H	**$12.29**	**$10.99**

Code Lock Kit ■ *67-piece kit*

- Switch an alarm on and off or open door locks
- 3000+ codes possible • LED indicates state
- Pulse or switch outputs
- Relay contact rating: 5A/220V



Requires: 9-15VDC (P/N 163491, pg 61) or 8-12VAC (P/N 100061, pg 60) power supply

Part No.	Product No.	Dimensions	Wt. (lbs.)	1	10
127554	K6400	1.7"L x 1.8"W	0.5	**$25.95**	**$23.95**

650nm Line and Dot Laser Diodes

Class IIIa Laser Product

167214/143845/173243:
- Focus adjustable w/ locking set screw
- Wattage: 5mW
- Operating voltage: 3-5V
- Size: 3.3"L x 0.9"Dia.
- One-year warranty


173243

143845: Line laser module
- Laser line width: 1mm • Laser fan angle: 60˚

173243: Cross hair laser diode module
- Laser fan angle: 60˚
- Female 2.1mm power connector
- Size: 3.0"L x 0.9"D

143837: Module regulated power supply
- Output: 5VDC @ 100mA
- Short circuit protection
- Input voltage: 95-125VAC or 190-250VAC switchable
- Size: 2.0"W x 1.7"D x 9.2"H
- Weight: 0.6 lbs.



143853: Laser module mount
- Built to hold laser diode on target.
- X-Y tilt, θ movement
- Tightening screw for tilt adjustment

Part No.	Description	1	10
143845	Line laser diode module ...	$114.95	$103.95
143853	Laser diode module mount ..	49.95	39.95
173243	Cross hair laser diode mod.	89.95	80.95
143837	Regulated power supply	19.95	17.95

ALPEC Laser Pointer Pens

- Range up to 500 yards
- 670nm red laser

Class IIIa Laser Product

153605:
- Color: black
- Size: 5.2"L x 0.4"Dia.


153605

Class IIIa Laser Product

127749:
- Silver brass
- Size: 5.4"L x 0.4"Dia.


127749

Includes: 2 AAA batteries

Part No.	Description	1	10
153605	Black pointer pen	$19.95	$17.95
127749	Silver pointer pen	21.95	19.95

Laser Diode Levels

- Line and dot laser models
- Skew is determined by built-in bubble
- Two magnets at the bottom of the unit for metal to magnet mounting
- Laser wavelength: 650nm
- Threaded mounting hole at the bottom of unit for tripod mounting
- Size: 5.4"L x 0.8"W x 1.4"H


169762


169771

SALE

Includes: Manual, 2 AAA batteries and plastic casing

Part No.	Mfr. Cross Ref. No.	Laser Type	1	10
169762	TI3284E	Line	$59.95	$53.95
169771	TI3284D	Dot	42.25	37.99



Phone 1-800-831-4242
Online www.Jameco.com
Order Anytime 24x7x365
Fax 1-800-237-6948

Glass-Lens Red Laser Diode and Line Generator

133292: Laser Diode

This lens design uses 3-element glass to collect almost all the power from the laser diode resulting in a brighter spot than many typical laser applications.


133292

Class IIIa Laser Product

- Operating voltage: 4.0–6.0VDC (recommend P/N 112070, pg 60)
- Maximum output: 4mW
- Beam size at 7m: oval – 5mm x 8mm
- Wavelength: 660nm
- Beam divergence: 0.2mrad
- Green LED indicator • Module size: 2.0"L x 0.5"W


134148

134148: 60° Line Generating Lens
- Adjustable focus range: 50 cm to ∞
- Back focal length: 1.5mm • Focal length: 8.0mm
- Beam divergence: 2.0mrad
- Lens construction: 3E.3G (glass)
- Fan angle: 60° • Length at 1 meter dist.: 1.70 m

Part No.	Description	1	10	25
133292	Glass laser diode...	$44.95	$39.95	$35.95
134148	60° lens	12.95	11.49	9.95

Laser Diode Module

- Operates on 3VDC @ <5mW
- 670nm wavelength
- Beam diameter: 3.2mm
- Working distance: over 50 meters/yards (daylight), 200 meters/yards (dark)
- Size: 0.9"L x 0.3"Dia. • One-year warranty

Class IIIa Laser Product



Part No.	Description	1	10	25
131203	Laser module, brass	$39.95	$35.95	$32.95

Laser Diode and Driver

182932: Laser Diode

Class IIIa Laser Product

- Optical output power: ≤5mW maximum
- Operating current: 30mA
- Operating voltage: 2.6V maximum
- Lasting wavelength: 650nm typical
- 5.6mm packaging size
- Beam divergence of 11 degrees from center line maximum


182932

161736: Laser driver w/ regulator
- Input voltage: 2.6-6VDC
- Input current: 40mA


161736

Part No.	Description	1	10	25
182932	650nm laser diode	$19.95	$17.95	$15.95
161736	Laser driver	7.95	6.95	6.25

ALPEC Laser Pointer with Key Ring

- Range up to 150 yards
- 650nm red laser
- Color: silver
- Size: 2.1"L x 0.5"Dia.
- One-year warranty

Class IIIa Laser Product



Includes: 2 coin cell batteries

Part No.	Description	1	10
153613	Laser pointer w/ key ring	$16.95	$14.95

Fiber Optic Cables and Detectors/Emitters are on page 128

9.8' Optical Voice Link Kit

This kit is the ideal introduction to the science of light transmission through 9.8' optical fiber.
- Weight: 0.6 lbs.



Requires: 9V battery, recommend (P/N 151095, pg 168)

Part No.	Description	1	10
169922	9.8' Optical Voice Link Kit	$49.95	$44.95

Educational Communication Kit

Explore fiber optic technology using this great hands-on educational product. This 3' digital link can also be used to construct high-voltage isolation for telephones, modems and computers.

SALE



Includes: 3' Optical Fiber Cable

Part No.	Description	1	10
169906	Ed. Communication Kit	$15.95	$13.95

Fiber Optic Designer's Kit

Simplex Kit

SALE



This "active link"interfaces with all TTL / CMOS logic and requires a single +5 volt power supply (recommend P / N 164101, pg 60). It includes 32' (10m) of 1000µm diameter plastic optical cable; 4 efficient dry, non-polish connectors, 2 bulkhead interfaces, 2 splices; 1 integrated detector and 1 emitter; and 2 top-quality printed wiring boards. Full instructions and technical data sheets complete the package.

Part No.	Description	1	10
169893	Fiber Optic Kit	$59.99	$54.99

Lab Course and Lab Kit

Experiment guide contains nine fiber optic experiments. Kit contains all the fiber optic and electronic components needed to complete the experiments.

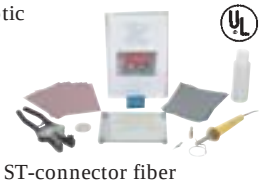


Experiments Include:
- Making a light guide • Fiber optic transmitter
- Fiber optic cable transmission
- Characteristics of connectors and splices
- Index-matching procedures • Receiver design
- Speed of opto-electronic devices
- Fiber termination techniques • Weight: 0.7 lbs.

Part No.	Description	1	10
169914	Lab Course and Lab Kit ...	$44.95	$39.95

Fiber Optic Cable-Cutting Tool Kit

Kit contains fiber optic stripper, 25W hot knife professional fiber cutter, water dispenser, rubber pad, 600 grit and 3µm polishing film, replacement blades, ST-connector fiber polishing puck, rugged storage container and instruction booklet. • Weight: 2.5 lbs.



Part No.	Description	1	10
170034	Fiber Optic Tool Kit	$149.95	$134.95

Super Snooper Big Ear Audio Amplifier Kit

■ *17-piece kit*



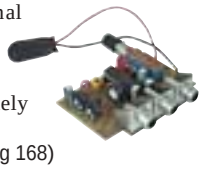
Listen through walls, hear conversations across the room or listen to sounds a block away. Add a parabolic reflector or mount the microphone in a tube, to isolate unwanted noise and make a directional microphone.

- Operating voltage: 9VDC (recommend P/N 151095, pg 168)

Includes: Instructions, outputs for speakers or headsets and schematic

Part No.	Dimensions	1	10	100
151204	1.8"L x 1.0"W x 0.6"H	$10.95	$9.95	$8.95

FM Stereo Transmitter Mini Kit ■ *37-piece kit*

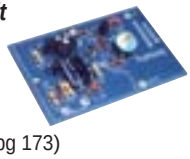


Run your own FM radio station! Plug any stereo signal into this unit and it will be transmitted to any FM radio. Tuneable from 76–108MHz. Plug in a CD player or tape deck and you have a wireless link to an FM radio within 200 feet. Clarity is approximately 40dB stereo separation.

Requires: 9VDC power supply (recommend P/N 151095, pg 168)

Part No.	Description	Dimensions	1	10
151239	FMST-100 stereo kit	2.7"L x 2.0"W	$29.95	$26.95

velleman FM Transmitter ■ *26-piece kit*



Mini FM transmitter (100-108MHz) ideal for family broadcasts, baby monitors and security. May be received by any portable FM radio or tuner.

- Integrated pre-amplifier (sensitivity 5mV)

Requires: 9-12VDC power supply (recommend P/N 20626, pg 173)

Part No.	Product No.	Dimensions	1	10	25
117604	K1771	1.8"L x 2.8"W	$12.49	$11.29	$10.19

One-Chip AM Radio Kit ■ *39-piece kit*



- Uses an IC that performs as an RF amp, detector & AGC in an AM radio

Requires: 9V battery (recommend P/N 151095, pg 168)

Part No.	Description	Dimensions	1	10	25
125161	AM radio kit	4.0"L x 1.3"W x 0.5"H	$15.49	$13.95	$12.59

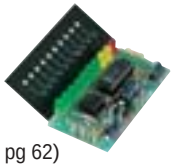
TV Notch Filters Mini Kit ■ *33-piece kit*



Eliminates unwanted TV channels or interference that alters sound and video. Works on cable channels 2 to 22 and 97 to 99.

Part No.	Description	Dimensions	1	10
151167	DF-222 TV filter kit	3.2"L x 0.9"W	$15.95	$14.49

velleman 10 LED Mono VU Meter Kit ■ *36-piece kit*



- Instant visualization of audio signal levels
- Easy hook up to a LINE level (LOW input) signal source
- Special input (HIGH input) is provided, which allows direct connection to a speaker output
- Frequency range: 20Hz to 30kHz
- Dot or bar display mode selectable

Requires: 15VDC @ 300mA max. power supply (P/N 189982, pg 62)

Part No.	Product No.	Dimensions	Wt. (lbs.)	1	10
147643	K4304	2.7"L x 1.4"H	0.3	$21.95	$19.75

30-Day Money-Back Guarantee

If for any reason you're not completely satisfied, we'll take it back!

Details on page 181

velleman Universal Mono Pre-Amplifier ■ *17-piece kit*



For audio applications with insufficient input signal.

- Output impedance: 1kΩ • Max. input signal: 40mV
- Frequency range: 20Hz - 20kHz +/-3dB
- Adjustable output level: 40dB max.

Requires: 10/30VDC @ 10mA power supply (recommend P/N 20626, pg 173)

Part No.	Product No.	Dimensions	1	10	25
117612	K1803	1.2"L x 1.8"W	$8.95	$7.95	$7.25

1-Watt Amplifier Kit ■ *9-piece kit*

SALE



Amplifies audio signals for an 8Ω speaker. Use on P/N 125111 and P/N 147838.

- Ideal part for larger projects & battery powered circuits
- Circuit designed around a single TDA7052 IC
- Battery and battery snap not included (recommend P/N 151095 and 109153, pg 168)
- Drives 8Ω speaker (not included – recommend P/N 135773, pg 0)

Part No.	Description	Dimensions	1	10	25
125111	1 watt amp kit	.3"L x 1.1"W x 0.9"H	$6.29	$5.59	$4.99

Super Mini 2.5W Audio Power Amplifier ■ *27-piece kit*



This circuit has incredibly tiny dimensions. The IC has a pre-amplifier and power amplifier, which can be used separately by cutting a jumper.

velleman

- Operating frequency: 60Hz to 15kHz
- Max. output power: 2.5W (4Ω, 12V)
- Short circuit/thermal overload protection

Requires: 4.5-15VDC @ 400mA power supply (recommend P/N 114825, pg 61)

Part No.	Product No.	Dimensions	1	10	25
127175	K2637	1.7"L x 1.3"W x 1.1"H	$11.95	$10.69	$9.65

velleman 7-Watt Amplifier Kit ■ *22-piece kit*



- Music output power: 7W/4Ω
- RMS output: 3.5W/4Ω & 2W/8Ω
- Harmonic distortion: 0.05% (1W/1kHz)
- Frequency response: 20 to 20kHz (-3dB)
- Short circuit/overload protection

Requires: 15VDC (8-18VDC) @ 500mA power supply (recommend P/N 155803, pg 62); speakers

Part No.	Product No.	Dimensions	1	10	25
127255	K4001	2.2"L x 1.4"W	$13.95	$12.49	$10.95

17-Watt Bridged Stereo Amplifier Kit

○ *17-piece kit*



- Drives 3-8 ohm speakers (2 recommended for stereo)
- Based on the Hitachi HA13118 dual amplifier IC

Requires:12VDC supply (recommend P/N 100095, pg 61)

Part No.	Description	1	10
136207	17.5 watt amplifier kit	$15.59	$13.95

CEBEK 20-Watt RMS Amplifier Module



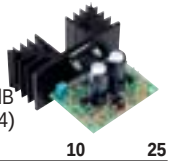
- Input signal: 250mV • Maximum current: 2A
- Output impedance: 4-8Ω (mono)
- Terminals: .100" matching disconnect solderless terminals
- Size: 2.8"L x 2.8"W x 1.6"H

Requires: Power supply: 12V @ 2A (recommend P/N 143714, pg 58)

Part No.	Description	1	10
147838	E-11 mono amplifier	$24.95	$22.49

velleman 30-Watt Stereo Power Amplifier

■ *38-piece kit*



General purpose stereo amp for audio applications.

- RMS output: dual 15W @ 4Ω or dual 10W @ 8Ω
- Frequency bandwidth: 7Hz to 60kHz (-3dB) • Separation: 70dB
- Supply voltage: 24VCT @ 2A (recommend P/N 101864, pg 54)

Part No.	Product No.	Dimensions	1	10	25
129138	K4003	2.8"L x 2.0"W	$29.95	$26.95	$24.49

Part Number Color Code: New Sale Refurbished Closeout

Sound Generator Kit ■ *61-piece kit*

- Produces 10 different sounds w/ adjustable speed: guns, sirens, car engines, explosions, tunes, screeching tires, phaser guns
- Push-button keyboard

Requires: 8Ω/1 watt speaker (recommend P/N 102031, pg 98); 9V battery (recommend P/N 151095, pg 168)



Part No.	Product No.	Dimensions	1	10
127562	K4401	2.8"L x 2.8"W	$29.95	$26.95

Metronome Kit ● *27-piece kit*

- Adjustable volume and beats/minute
- LED beat indication
- Incorporated speaker
- On/off switch on board

SALE

Requires: 9VDC battery (P/N 151095, pg 168)



Part No.	Product No.	Dimensions	Wt. (lbs.)	1	10
157331	MK106	2.4"L x 1.6"W	0.1	$13.99	$12.79

Light Sensitive Electronic Cricket Kit ■ *26-piece kit*

Sounds like a cricket when it gets dark!

- Adjustable cricket effect, tone and light sensitivity
- Minimum consumption: 9V/5mA

Requires: 8-15VDC power supply (P/N 100095, pg 61) or 9VDC battery (P/N 151095, pg 168)



Part No.	Product No.	Dimensions	Wt. (lbs.)	1	10	25
147547	MK104	2.5"L x 1.7"W x 1.6"H	0.1	$14.95	$13.49	$11.95

Siren Kit ● *20-piece kit*

- Oscillator is off until you press the switch, then a rising tone is produced until a steady value is reached
- If switch is released, tone starts dropping until it cuts off
- Circuit designed around a dual op amp connected as an oscillator and driver

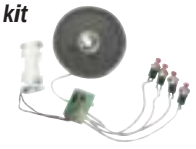
Requires: 9V battery (recommend P/N 151095, pg 168)



Part No.	Description	Dimensions	1	10	50	100
125137	9V siren	2.0"L x 0.8"W x 0.5"H	$6.95	$6.25	$5.59	$4.95

Train Sound Generator Kit ● *11-piece kit*

- Produces 4 train sounds by switch selection
- Components supplied for operation on 3VDC (includes battery holder for 2 AA batteries), but circuit will operate from 2.4-6VDC (recommend P/N 151087 2 each, pg 168)

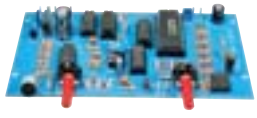


Part No.	Description	Dimensions	1	10	25
125170	4 train noises	1.1"L x 0.6"W x 0.2"H	$9.49	$8.59	$7.69

Electronic Watchdog Kit ■ *104-piece kit*

- Reacts to environmental noise with adjustable sensitivity
- Choice of 2 different dog barking sounds
- Realistic simulation through random generator
- Can connect to other trigger detectors

Requires: 2-8VAC power source or 9-12VDC @ 500mA (P/N 114825, pg 61) power supply



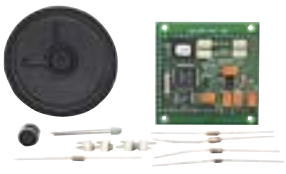
Part No.	Product No.	Dimensions	Wt. (lbs.)	1	10
127597	K2655	5.6"L x 2.9"W	0.5	$44.95	$39.95

Speech Recording & Recognition Kits

KIT ASSEMBLY EXPERIENCE LEVEL: ● = Beginner ■ = Intermediate ▲ = Expert

Interactive Speech Recognition Kit ■

Voice Direct 364 is a speaker dependent speech recognition module, allowing training of up to 60 words or phrases in slave mode, or 15 words or phrases in stand alone. This kit maps spoken commands to system control functions. Each time one of the words is recognized, output pins on the module are toggled high for 1 second.



Includes: Voice Direct 364 module, Quick setup guide, Microphone element, Speaker (2.25" Dia., 8Ω), 4 microswitches, and a passive component selection to configure the module

Part No.	Description	1	10
173489	Speech recognition kit	$59.95	$53.95

Digital Voice Module

- Selectable 16k/32k/44k bps sampling rate
- 0.5W audio amp on board with volume control
- All components soldered on board
- Plays 16 messages • 1M DRAM on board
- Power requirements: 6-12VDC, 200mA (P/N 100095, pg 61)



Part No.	Mfr. Cross Ref. No.	1	10	25
124871	DVM58D	$79.95	$71.95	$64.75



Don't worry about backorders.
Over 99% of our products are in stock!

We'll Send It Today!

Just place your order by 6PM EST for same business day shipment

Speech Recognition Kit ▲ *42-piece kit*

A complete easy to build programmable recognition kit, program the words you want the circuit to recognize. The heart of this speech recognition kit is the HM2007 IC wherein you can program 40 words @ 0.96 second word length or 20 words @ 1.92 seconds word length. Several applications for this kit are: speech controlled appliances and toys, speech assisted computer games, telephone assistance systems, voice recognition security, and speech-to-speech translation.



NEW

- User programmable • Non-volatile memory back-up
- Easily interfaced to control external circuits and appliances • Multi-lingual

Part No.	Mfr. Cross Ref. No.	Description	Wt. (lbs.)	1	10
208611	HM2007U1	Speech kit	0.7	$119.95	$107.95

Voice Activated LEDs Kit ■ *33-piece kit*

Uses sound to activate the flashing of 4 bright red LEDs.

- Power consumption: 0.5mA min./12mA max.
- Adjustable sensitivity

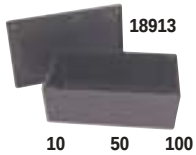
Requires: 8-15VDC power supply (P/N 100095, pg 61) or 9VDC battery (P/N 151095, pg 168)



Part No.	Product No.	Dimensions	Wt. (lbs.)	1	10	25
147571	MK103	2.5"L x 1.6"W x 1.4"H	0.1	$9.95	$8.95	$7.49

ABS Speedy Enclosures

Will not crack or split when drilled or punched. PCB mounting slots on all sides. Complete with four screws and lid. All sizes below are for interior dimensions.



Part No.	Mfr. Cross Ref. No.	Size (L x W x D)	Wt. (lbs.)	1	10	50	100
18921	H2855	3.1" x 2.0" x 0.9"	0.1	$2.69	$2.39	$2.19	$1.99
18913	H2853	4.9" x 2.5" x 1.5"	0.2	2.79	2.49	2.25	1.99
18892	H2851	6.0" x 3.5" x 1.9"	0.4	3.39	3.05	2.75	2.45
18905	H2852	7.5" x 4.3" x 2.3"	0.5	5.35	4.59	4.09	3.35

5 EASY WAYS TO ORDER

Telephone: Toll-Free 24 hours a day!
1·800·831·4242
International orders,
call 1·650·592·8097

24-hour Ordering Hotline!

Toll-Free FAX:
US / Canada: 1·800·237·6948
Brazil: 000·817·455·6119
Columbia: 980·9·136748
Indonesia: 1·803·015·237·6948
Mexico: 001·800·593·1449
New Zealand: 080·044·0470
Other Countries: 1·650·592·2503

Online: http://www.Jameco.com
On-line catalog! Our complete offering of over 6,000 products searchable on the Jameco website!

Mail: E-mail your order to: sales@Jameco.com or fill out the order form (page 182) and mail it to us.

In-Person: Visit Jameco at 1355 Shoreway Rd., Belmont, CA. Will-call office hours are 8:00 a.m. - 5:00 p.m. Monday - Friday

CONTACT INFORMATION

The following services are available at 1·650·592·8097 Monday - Friday from 6:30 a.m. - 5.00 p.m. PST or via e-mail:

- International Sales (international@Jameco.com)
- Customer Service (custservice@Jameco.com)
- Credit Department (credit@Jameco.com)
- Technical Support (tech@Jameco.com)

Toll-Free Hotline!

Please call us at 1-800-831-4242.

A Nuestros Clientes en

La Republica Mexicana: Si usted requiere tratar en Espanol y adquirir nuestros productos facturados L.A.B. Cd. De Mexico (libres de Aduana) y enviados al interior del pais via Estafeta, contacte con nuestro Representante y Distribuidor exclusivo;

Proyeccion Electronica de Mexico, S.A. de C.V. a: General E-mail: info@proyel.com.
Quote E-mail: jmc@proyel.com
Phone / Fax: 01-(55) 5273-5029
Direccion:
Benjamin Franklin No. 166 Desp. 1
Col. Escandon Deleg. Miguel Hidalgo
C.P. 11800 Mexico, D.F.

Los demas paises de Latinoamerica: Ya pronto tendremos servicio en su Region. Si usted tiene alguna duda o comentario respecto a los servicios de Jameco, contacte con la empresa arriba mencionada en la Ciudad de Mexico, ellos le pueden ayudar.

PRICES

Prices are effective 7-22-02 and expire 10-20-02. Prices and discounts are subject to change without notice. We are not responsible for any typographical errors in this catalog. Photos are representative; product appearance may vary.

ONLINE INFORMATION

Get answers to frequently asked questions on the Jameco website at:

http://www.Jameco.com

PAYMENT OPTIONS

Credit Card/Check Cards

We accept VISA, MasterCard, American Express and Discover. No surcharge. Your account will not be charged until your order is shipped. When ordering, please advise name on card and credit card billing address.

Check or Money Order

You may pay by check or money order in U.S. funds, drawn on a U.S. bank.

Open Account

It is easy to open an account with Jameco. Contact us for obtaining open account status.

C.O.D.

Personal checks are accepted. Please add $5.00 per C.O.D. order. Include the name and address of your bank and your account number.

International Orders

All foreign orders must be prepaid with a credit card (see approved credit cards above), wire transfer, traveler's check, cashier's check or money order drawn on a U.S. bank in U.S. funds only. Please do not send cash. Jameco cannot accept letters of credit as a form of payment.
E-mail: international@Jameco.com.

SERVICES

30-Day Money Back Guarantee

If for any reason you are not completely satisfied with your purchase, simply return the product, in its original packaging, within 30 days for a refund, credit or exchange. Parts returned due to customer ordering error may be subject to a restock fee. Call our customer service department at 1-800-536-4316 or visit www.Jameco.com to request an RMA#. It should appear clearly on the outside of the box. Returns without an RMA# will not be accepted, and no freight collect packages will be accepted. A completed Jameco customer service form, located on the back of the packing slip, must be included with your return. Books, kits, software, grab bags and special orders are not returnable. Special orders consist of products sold at an OEM quantity discount or products not listed in the Jameco catalog.

Jameco Warranty

Jameco warrants all merchandise against defects in material or workmanship for a period of 90 days from date of purchase unless otherwise stated. Longer and / or broader warranties may be provided by the manufacturer of a particular product. Defective items must be returned prepaid. This warranty shall not apply to any item where defects have been caused by improper customer assembly, failure by customer to follow instructions, product modification, negligent or improper operation.

Limitation of Liability

Jameco's liability shall be limited to the repair or replacement of defective products in accordance with the Jameco limited warranty. Jameco shall not be liable for any incidental, special or consequential damages for breach of any warranty, expressed or implied, directly or indirectly arising out of Jameco's sale of merchandise, including any failure to deliver any merchandise, or arising out of customer's installation or use, whether proper or improper, of the product, separately or in combination with other equipment, or from any other cause. Products sold by Jameco are not authorized for use as critical components in life support devices or systems.

SHIPPING INFORMATION



Guaranteed Delivery Time for UPS Ground (Business Days)

1 day	2 days	3 days
4 days	5 days	6 days

Orders received Mon.-Fri. by 6:00 p.m. Eastern Standard Time will be shipped the same day. Orders received Saturday and Sunday will ship the following Monday (except on holidays). If we are unable to fill your order on the day received, we will send you a gift certificate worth $5.00 towards your next Jameco purchase. This offer does not apply to orders waiting for credit approval or backordered items.

Options and Rates*

Shipping delivery times are based on working days.

Ground Service
Up to 6 working days for commercial address (up to 9 working days for residential). Guaranteed delivery times may vary depending on zip code. $6.00 for 1st 2 lbs.; $0.65 for each additional lb.

2-Day Air Service
$12.00 for 1st 2 lbs.; $1.50 for each additional lb.

Next Day Air Service
- $21.50 for AM delivery for 1st 2 lbs.; $1.90 for each additional lb.
- $16.00 for afternoon delivery for 1st 2 lbs.; $1.90 for each additional lb.

Priority Mail (USPS)
$4.75 for 1st lb.; $1.90 for each additional lb.
Order must be placed before 5:00 p.m. Eastern Standard Time to ship same day.
Jameco reserves the right to rebill shipping surcharges for customer misadressed packages

* The above rates apply to single box shipments that are less than 50 lbs. Please call for shipping quote on packages greater than 50 lbs.

International Shipping & Handling

Shipping is via courier or postal service, depending on your preference, insurance availability, and the size and weight of your package. Jameco will apply actual shipping charges with a nominal handling charge on all foreign orders. For mail-in customers, please include 25% for shipping charges or call for a shipping quotation. All returns that meet postal requirements must be sent prepaid via air parcel post. All courier shipments to Canada and Mexico require a certificate of origin. Jameco will provide a certificate of origin for a $25 processing fee.

POLICIES

Confirming Orders

Please do not send confirming orders. If company policy necessitates a confirming order, please mark "CONFIRMING" boldly on the first page of the order.

No Minimum Order

A $5.00 processing fee will be added to orders under $20.00. This fee is waived for orders placed on our website.

See page 181 for Ordering Information

Fax 1•800•237•6948 Order 24 hours/7 days a week!

Jameco, 1355 Shoreway Road, Belmont, CA 94002 Call: 1•800•831•4242 International TEL: 1•650•592•8097 FAX: 1•650•592•2503

1 Ordered By:

We will ship to this address unless you enter a different ship to address.

Customer No. **VIP No.** (see back cover)

Company

Name of Requisitioner Title

Name of Purchasing Agent Title

Street Address/PO Box Number

City State Zip Code

Contact information (please provide all information and check method preferred)

( ) ☐ Daytime phone number - Required for Credit Card Orders

( ) ☐ Fax Number

☐ E-mail Address

☐ Please check this box if you would not like to receive special offers via e-mail from Jameco.

2 Ship To: (Only required if different)

Company

Name Title

Street Address/PO Box Number

City State Zip Code

3 Method of Payment:

☐ Prepaid (check enclosed) ☐ C.O.D. ($5.00 service charge)

☐ Net 30 Days (Account must be previously established. Authorized P.O. # required.)

PURCHASE ORDER NO.:

☐ Credit Card VISA MC AMEX DISCOVER

Credit Card users only:

Credit Card Number

Exp. Date: Month Year Name on card

Billing Address Street/PO Box City/State/Zip

4

ITEM NO.	QTY.	PART NUMBER	DATA SHEETS	DESCRIPTION	PAGE NO.	WEIGHT (LBS.)	UNIT PRICE	TOTAL
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								

TOTAL WEIGHT		SUB-TOTAL	
		Add $5.00 processing fee on orders under $20**	
		Please Add Applicable Sales Tax (California Only)	
		Shipping (See Item 5)	
		C.O.D. (add $5.00)	
		Canada and Mexico Certificate of Origin ($25)	
		Credit Memo (please attach)	–
		TOTAL	

5 Please Check Shipping Method Below:

(USPS)

- ☐ **Priority Mail (USPS)** .....$4.75 for 1st lb., $1.90 for each additional lb.
- ☐ **Ground** .....$6.00 for 1st 2 lbs., $0.65 for each additional lb.
- ☐ **2 Day Air Service** .....$12.00 for 1st 2 lbs., $1.50 for each additional lb.
- ☐ **Next Day Air Service** (AM delivery).....$21.50 for 1st 2 lbs., $1.90 for each additional lb.
- ☐ **Next Day Air Service** (PM delivery).....$16.00 for 1st 2 lbs., $1.90 for each additional lb.
- ☐ **Foreign Shipment** via Air Parcel Post .....Shipping approximately 25% of order total. Excess fees will be refunded. Additional shipping methods available

**$5.00 fee waived for orders placed on our website. (www.Jameco.com)
Some restrictions may apply. See order information on page 181 for other shipping methods and conditions of sale.
Shipping rate is based on a single package shipment.

6 JAMECO thanks you for Your Order!

FOR OFFICE USE ONLY
/

A

3M® PRODUCTS 87, 96, 98, 106
A/D CONVERTERS 9
ACCELEROMETER....175
ADAPTERS
Audio/Video 160
BNC....127
Hard Drive....145
Keyboard 145, 149
Modular Telephone 129
Monitor....132, 146
Network....131, 133
Null Modem....146
PLCC....90
SCSI....133, 145
Serial 146
Single Binding Post to BNC....107
SMA/SMB 127
Telephone....129
Token Ring 135
USB/Fire Wire....143
ADVANCED LINEAR DEVICES 175
ALLIGATOR CLIPS/CONNECTORS 107
AMPHENOL®....85, 127
ANALOG DEVICES....13
ANTI-STATIC EQUIPMENT....89, 106
APC®....152
APEM®....68, 70, 71
APPLE®/MACINTOSH® PRODUCTS
Adapters....133
Batteries....133
Cables....133, 143
Floppy Drives....133
Mice/Trackballs 133, 159
PC to TV Converters....160
Power Supplies....133
Software....133
Testers 137
USB Products....142, 143, 158, 159, 160
ATEN®....135, 140, 142, 143, 148, 159
ATMEL....7
AUDIO EQUIPMENT
Amplifiers 179
FM Transmitters 179
Headphones....99, 160
Microphones....99, 160
RCA Cables....100
Sound Cards....160
Speakers....99, 100, 160
Stereo Adapter 100
AUTOMOBILE PLUGS....66
AUTOMOBILE POWER INVERTERS....66

B

BALUN, COAX NETWORK....128
BANANA PLUGS 107
BASIC STAMP CONTROLLERS 169, 170
BATTERIES & ACCESSORIES
Batteries....133, 168
Holders & Snaps 168
Laptop 159
Rechargeable 168
BINDING POSTS 107
BK PRECISION®....111, 116
BLOWERS....(See Fans)
BNC CABLES/CONNECTORS/ADAPTERS 108, 126, 128
BNC CONNECTOR REMOVAL TOOL 121
BOARDS....(See Cards)
BOCA SEMICONDUCTOR....24, 25
BOOKS....95, 108, 165-167, 169-171, 173
BOTTLE, PUMP 106
BOXES....95, 96, 98
BRACKETS/MOUNTING RAILS..153, 154, 163
BREADBOARDS....90, 91
BREAKOUT BOXES 132
BUFFER, PRINTER....148, 149
BUG BOXES AND TRAYS....98
BUZZERS 101

C

CABINETS/ENCLOSURES....95, 96, 98, 150
CABLES, ASSEMBLIES AND BULK
Apple Network®....133
Apple®/Mac Printer Ext. & Modem....133
Audio....144, 154
BNC 108, 126
Break-Out Box....132
Category 5 (UTP) Network 129
Centronics....144
Coaxial 126
DB25-Pin Extension....144
Extension 144
F-Type Coaxial 126
Fiber Optic 128
Floppy Drive....154
Hard Disk Drive 154
IEEE 488/1284/1394 Cable....145
Keyboard 145, 149
Management....86, 87, 130, 143
Modular Telephone 131
Monitor....144, 145, 149
Mouse....144, 145
Network....88, 129, 131, 133
Null Modem....146
Power Cords 38, 56, 57, 146
Printer 133, 143, 144
RCA....144
Ribbon 88, 139, 144
SCSI....133, 154
Serial....144, 145
Shielded....88, 129, 144
SMA/SMB 126
Switch Box 144, 145, 148
Telephone....131
Testers 132
Ultra DMA 66 154
Universal Serial Bus (USB)....143
Video, RGB....144
Wireless 163
CABLE CRIMPERS 121
CABLE MARKERS 87, 130
CABLE SLEEVE....87
CABLE STRIPPERS....120, 121
CABLE TESTERS 132
CABLE TIES & CLAMPS 86, 87, 143
CAIG® CHEMICALS 89
CALIPERS 124
CAMERAS AND ACCESSORIES
Antennas/Boosters....163
CCD 164
Digital, USB....161
Dome....164
Enclosed....161, 162, 164
Enclosures 163
Infrared....164
Lenses 162, 164
Mounting Brackets and Devices....163
Switcher 163
Transmitters/Receivers 163
USB....161
Wireless....163, 164
CAPACITORS
Assortment/Kits/Grab Bags 63, 64
Ceramic Disc 19
Dipped Tantalum 19
Electrolytic, Axial....18
Electrolytic, Large Can Aluminum 17
Electrolytic, Radial 17
Kits 63, 64
Memory Back-Up....20
Monolithic, Ceramic....19
Mylar....19
Silver Mica....20
SMT, Cer. Chip/Alum Electrolytic 18, 20
Tantalum....19, 20
Trimmer, Ceramic....20
CAPITAL ADVANCED TECHNOLOGIES....91
CARDS, COMPUTER
Camera Boards 162
Controller 134, 135
Data Acquisition 138-140
Diagnostic 137
Fax/Modem....134
Graphics....157
Hard/Floppy Disk Drive Controllers 135
Input/Output....135-137
Network....135
Oscilloscope 109
Parallel....136, 137
Printer....137
Programmer 169, 170
Prototyping 90, 91, 175
SCSI....134
Serial....136, 137
Sound....160
USB....142
Video Capture....161
CD-ROM & ACCESSORIES....153, 154
CHEMICAL CLEANERS & ACCES. 89
CHOKES....23
CIRCUIT BOARD MNTG HARDWARE..96-98
CIRCUIT BOARDS 92, 93, 96
CLAROSTAT®....22
CLEANERS/DEGREASERS....89
CLIPS
Alligator 107
Battery....168
Test 107, 108
CLOCK CHIPS....8
CLOCK MODULES....8, 10
CLOCK/TIMER KITS....176
CLOCKS/TIMERS....117
COMPASS, MODULE....175
COMPONENT ASSORTMENTS
Carbon Film Resistors....21
SMD Resistors....20
COMPONENT CABINETS....20, 98
COMPUTER
Accessories....154, 168
Boards/Cards....134-140, 142, 150, 156-157, 160, 162
Brackets....153, 154
Cables, Int./Ext./Network....144, 146, 154
Cameras....161, 162, 164
Cases/Enclosures....150, 153
CPU Fans 155
CPUs/MPUs....7
Data Acquisition, Cards/Software 138-140
Drives, Floppy/Hard....153
Fans 155
Hardware/Brackets/Rails....153, 154
Industrial 140, 150
Keyboards 150, 158
Keypads....158
Kits/Grab Bags....63
Laptop Batteries 159
Math Coprocessors 8
Memory Chips 156
Mice....159
Monitors....161, 162
Motherboards 156, 157
Oscilloscope Cards 109
Other Cards....137, 156
Power Cords 56, 57, 146
Power Supplies 133, 147
Prototype Boards 90-92
SIMM to SIMM Converter Card....156
SIMMs & DIMMs 156
Trackballs....159
Video Cards....157, 161
Video RAM....8
CONNECTORS
Amphenol®....85, 127
ATX 125
BNC 126, 127, 128
Card-Edge, IDC, PC Mount 80
Centronics, IDC, PC Mount, Right Angle ...85
Centronics, Parallel Interface....85
Coax 126, 127, 128
D-Sub, Hardware/Hoods/Crimp Housing...84
D-Sub, IDC/Solder Cup....84
D-Sub, PC Mount, Right Angle/Straight....84
DIN 85
Gender Changers....146
Headers 81, 82
Housings, Square Pin 81
IDC Plug & Socket/ Wire 80, 84, 85, 125
MCX/MMCX (AMPHENOL®) 127
Modular/Telephone 129-131, 134
Molex®....125
Network....129-131, 134
Pins, Crimp/Power 81, 125
Power....55, 66, 125
RCA Jacks....126
SCSI II/III 85
Shorting Blocks....81
SMA/SMB 127
Telephone....129-131, 134
Terminal Blocks 80
Token Ring 135
USB....125
CONTROLLER CARDS HD/FDD 135
CONTROLLERS
Micro....10, 165, 170
Motor....40, 138, 173
PIC....93
CONVERTERS 52, 53, 136, 140, 143, 148
CONVERTERS DC-DC 52, 53
COOLERS, THERMOELECTRIC/CHIPS ..155
CORDS, POWER....56, 57
COUPLERS, SHAFT....172
CPUs 7
CRIMPING TOOLS....120, 121
CRYDOM RELAYS 76
CRYSTALS/OSCILLATORS 28
CURRENT CLAMP METER/ MULTIMETERS 113-116

D-E

D/A CONVERTERS 9
DALLAS SEMICONDUCTORS....9
DARLINGTON TRANSISTORS....24, 25
DATA ACQUISITION....138-140
DATA BOOKS....165-167
DATA LOGGER....141
DC-AC INVERTERS 66
DC-DC CONVERTERS 52, 53
DC MOTORS....42, 43
DC POWER SUPPLIES 44-52, 58, 59, 91
DESIGN SOFTWARE....93
DESOLDER STATION & EQUIP. 102-104
DIGITAL I/O MODULES/CARDS ..79, 138-140
DIGITAL LAB & TRAINER....91
DIGITAL MULTIMETERS 113-116
DIGITAL OSCILLOSCOPES....109, 110
DIGITAL PANEL METERS....34
DIGITAL POWER....48
DIN-RAIL PRODUCTS 49, 80
DIODES
Germanium....27
Grab Bags....63
Infrared (LEDs) 32
Kits/Grab Bags 63, 64, 177
LED Displays 33
LEDs....30-32
Rectifiers....26, 27
Surface Mount 27
Switching....27
Zener....27
DIP SWITCHES....71
DISPLAYS, LED & LCD....33-35
DRILL BITS....118
DRIVES, COMPUTER
Accessories 145, 153-155, 159
Cases/Enclosures....150, 153
CD-ROM 153
Floppy 153
Hard....153
Thumbdrives....143
ZIP 153
DVM (DIGITAL VOLTMETER)....175
EDUCATIONAL ELECTRONIC LABS....91
EEPROMS....6
EE TOOLS....94
ELAB®....10
ELECTRONIC KITS....169-180
ENCLOSURES....95, 96, 98, 150
ENTRELEC®....80
EPROM ACCESSORIES 6, 94
EPROM PROGRAMMERS/ERASERS..94, 95
EPSON®....10
ESP® SMT TOOLS & ACCESSORIES....118
ETHERNET PRODUCTS....135

F

FANS
AC Tube-Axial....38
Brushless DC 36-37
Cords....38
Cooling System 155
CPU Heat Sink w/ Fan....39, 155
Filters....38
Guards 38
Hard Drive....155
PC 155

FAX/MODEMS 134
FEET 96, 98
FIBER OPTICS 128, 178
FILES 124
FILTERS, PWR. ENTRY/LINE/AC PLUG 55
FILTERS, DSP 166
FIREWIRE CABLES 143, 145
FLASHLIGHTS 124
FLOPPY DRIVES/ACCESS. 153, 154
FLUKE® TEST EQUIPMENT 113
FLUORESCENT LAMPS 34
FLUX, ROSIN PASTE 106
FREEZER, AEROSOL 89
FREQUENCY COUNTERS 110, 111
FUME EXTRACTOR & ACCESS. 102
FUNCTION GENERATORS 110, 111
FUSES
- Clips 67
- Fuses 67
- Holders 66, 67
- Resettable Fuses 67

G-H

GALs 7
GEARS 172
GENDER CHANGERS/ADAPTERS ..143, 146
GENERATOR, TELEPHONE RINGER 134
GIPB (IEEE-488)
- Cables 145
- Cards, PC 140
- Converter 148

GLUE GUN & STICKS 124
GRAB BAGS 63
GRAPHICS CARDS 157
GROUNDING/STATIC CONTROL 106
HALL EFFECTS SENSORS 79
HANDY BOXES 95, 96, 98
HARD DISK DRIVES/ACCESS. ..143, 153, 154
HARDWARE
- Cable Mounting 86, 87
- Computer Brackets 154, 155
- Connector Mounting 86
- Drive Mounting 153, 154
- Fan Guards 38
- Feet 96, 98
- Heat Sink Mounting 39
- Kit 63, 64
- Knobs 97
- LED Mounting 31
- PCB Mounting 96-98
- Prototype Enclosures 95, 96
- Screws, Nuts, Washers 84, 97
- Spacers 96, 97
- Standoffs 97, 98

HEADER PLUGS 81
HEADERS 81, 82
HEADSETS 99, 160
HEAT GUNS 87
HEAT SHRINK TUBING 87
HEAT SINKS
- 486/Pentium® Heat Sink & Fan 39, 155
- Clip on 106
- Compound 39
- CPU 39, 155
- Mounting Kits 39
- Pentium® II 7
- TO-3, TO-218, TO-220 39

HEMOSTAT 124
HEWLETT PACKARD® 153
HIGHLY ELECTRIC® SWITCHES/SENSORS 73, 79
HOBO® DATA LOGGERS 141
HOODS, D-SUB 84
HUBS 135, 142
HEX WRENCH SET 119

I

IC DEVELOPMENT TOOLS 118
IC KITS 63, 65
IC STORAGE TUBES 98
IC TESTER/PROGRAMMER/ERASER 94, 95
IDEAL® PRODUCTS (Tools) 120, 121
IEEE 1284 CABLES 145
IEEE 1394 CABLES (FIREWIRE) 145
IEEE 488 (GIPB)
- Cables 145
- Cards, PC 140
- Converter 148

IMAGES SI INC. 171, 180
INDUCTANCE/CAPACIT./RESIST. 117
INDUCTORS, TOROID 23
INDUSTRIAL COMPUTING 140, 150
INFRARED
- Cameras 164
- Diodes 32
- Illuminator Kit 177
- Kit 177
- Remote Control Modules 177
- Thermometers 117
- USB Transceiver 143

INPUT DEVICES
- Accessories 145, 146, 159
- Keyboards/Keypads 150, 158
- Mice/Pointing Devices 133, 159

INSPECTION SET 122
INTEGRATED CIRCUITS
- 5000 Series 8
- 6500 Series/Commodore 9
- 6800 Series 8
- 7400-TTL (DIP) 13, 14, 63, 65
- 74C00-TTL, CMOS (DIP) 14
- 74HC00-TTL, CMOS (DIP/SMT) 15, 16
- 74HCT00-TTL, CMOS (DIP) 16
- 74LS00-TTL (DIP/SMT) 14, 15, 63, 65
- 74S00-TTL (DIP) 15
- 8000 Series 8
- 9000 Series 9
- A/D & D/A Converters 9
- AMD® CPUs 7
- Analog Devices® 13
- Assortment 63, 65
- Atmel® (AT89C Series) 7
- BASIC Stamps/Accessories 169, 170
- CD4000-CMOS (DIP/SMT) 16, 65
- Clock Chips 8
- Clock Modules 8, 10
- CMOS Devices 16
- CMOS Encode/Decode, Remote Control 9
- CMOS PIC Microcontrollers 9
- Controllers 10
- Converters 9, 12
- CPUs/MPUs 7
- Dallas Semiconductors® 9
- Decoder/Encoder Chips 9, 10
- Digital Interface 10
- DIMM Modules 156
- Dynamic & Video RAMs 8
- E-Lab® Digital Interface 10
- EDO Memory 156
- Embedded Microcontrollers 170
- EPROMs & EEPROMs 6
- EPSON® 10
- Flash Memory 7
- GALS and PALS 7
- Harris/Intersil® 9
- Holtek® 9
- ISD® Voice Chip 10
- Linear Series (DIP/SMT/TO) 11-13, 63, 65
- Math Coprocessors 8
- Maxim® Linear 13
- Memory Chips 7
- Memory Modules 156
- Microchip® 9
- Microcontrollers 10
- Microprocessors 7, 8, 170
- Motorola® Type Series 9
- National Semiconductor® Linear 11-13
- NEC® V20 8
- Optoisolators 29
- PALs and GALs 7
- PEEL ICT CMOS 7
- Pentium®/Processor Chips 7
- PIC 9
- Princeton Technologies® 10
- PROMs 6
- RAM, Dynamic 8
- RAM, Static 7
- RAM, Video 8
- RCA® Linear Series 13
- Servo & Stepper Motor Controller 10
- Signetics® Type Linear Series 10
- SIMMs 156
- Sockets 63, 65, 82, 83
- Static RAM 7
- Stepper Motor Controller 10
- Surface Mount 11, 12, 14-16
- Test Clips 14
- Test Leads 107, 108
- UARTs/USARTs/DUARTs/MUARTs 9
- Voice Chips 10
- V20 Chips 8
- Z80 Series Microprocessors 8

INTEGRATED POWER DESIGNS 47
INVERTERS 66
I/O CARDS 135-137
I/O MODULES/MOUNTING BOARDS 79
ISOCOM® OPTOISOLATORS 29
ISOSENSE® OVERCURRENT DETECTOR ..54

J-K

JACK SCREWS/HEX NUTS 84, 97
JOYSTICK ADAPTER, USB 143
JUMPER LEADS 91
KESTER® SOLDER & ACCESSORIES 106
KEYBOARDS 150, 158
KEYCHAINS 122
KEYPADS 72, 158
KITS, ELECTRONICS
- Audio Transmitters and Amplifiers 179
- BASIC Stamp Programming 169, 170
- Clock 176
- Fiber Optics 178
- Infrared Transmitters and Receivers 177
- Lasers 178
- Liquid Level, Distance and Light 174
- Motor Controller/Module 173
- PC Photo Etch 95
- PCB Design Kits 95
- PIC 93
- Power Supply 173
- Relay Controller 173
- Robot Kits 170-172
- Sound Generation and Detection 180
- Speech Recording and Recognition 180
- Test and Measurement 175
- Timers 176
- Velleman 171, 173-177, 179, 180

KITS, COMPONENTS
- Capacitors 63, 64
- CMOS, CD4000 Series 16, 65
- Diodes 63, 64
- Grab Bags 63
- Hardware, Mounting 63, 64
- IC Kit, 7400 Series 13, 63, 65
- IC Kit, 74LS00 Series 14, 63, 65
- IC Sockets 63, 65
- LED Hardware 31, 65
- LEDs 63, 65
- Linear ICs 12, 63, 65
- Potentiometers 63, 64
- Refills 63, 64
- Resistors 21
- SMD Resistors 20
- Switches 63, 64
- Transistors 63, 64

KNIFE SET 124
KNOBS 97
KYOTO (Relays) 78

L-M

LACING TAPE 86
LAMP, Magnifying/Desktop 122
LAMPS, Incandescent/Fluorescent 34
LAPTOP PRODUCTS
- Batteries 159
- Cables 56, 143, 146
- Cards 142
- DVM (Digital Voltmeter) 175

LASER DIODES & ACCESSORIES 178
LASER POINTERS & LEVELS 178
LCD DISPLAYS 34, 35, 162
LCR Meters 117
LEADS, TEST 91, 107, 108
LEDs
- Accessories/Hardware 31, 63, 65
- Cable Assemblies 31
- Clusters 31
- Displays 33
- High Power 32
- Infrared 32, 177
- Kits/Grab Bags 63, 65
- Panel Indicators 33
- Power Indicators 33
- Standard 30, 31

LEDs 30-32
LEDTECH® 31, 33
LENSES (Camera) 162, 164
LIGHT METER, DIGITAL 117
LINE CONDITIONERS 151
LINE CORDS 55
LINE SEPARATOR, AC 116
LIQUID LEVEL SENSOR/CNTRLR 74, 174
LUBRICANT 89
LOGIC PROBE AND PULSER 111, 112
MACINTOSH® PRODUCTS 133
MAGNIFIERS 122
MAGNIFYING GLASSES/LAMPS 122
MARKERS 87, 130
MATH COPROCESSORS 8
MEANWELL PWR. SUPPLIES ...44-47, 58, 66
MEMORY
- Batteries 168
- Capacitors 20
- Converter Cards SIMM to SIMM 156
- DIMM 156
- EDO 156
- SIMM 156
- SIMM to SIMM Converter Card 156

METEX® TEST METERS 111, 115, 116
MICE AND ACCESS. 133, 159
MICROCONTROLLERS 10, 170
MICROMETER 124
MICROPHONE
- Cartridge/Condenser 99
- Headset 99, 160
- PC Desktop 160
- Wireless 99

MICROPROCESSOR CRYSTALS 28
MICROPROCESSORS 7, 8, 170
MODEMS/FAX MODEMS 134
MODULAR JACKS & ADAPTERS 129, 131
MODULATORS 160
MOLEX® CONNECTORS 125
MONITOR STAND/BRACKETS 163
MONITOR TESTER 137
MONITORS 161, 162
MOTHERBOARDS 156, 157
MOTION DETECTOR 174
MOTOR CONTROLLER 40, 173
MOTORS
- DC 42, 43
- Geared 42, 43
- Servo – Radio Controlled 172
- Shaft Couplers 172
- Stepper 41
- Stepper Controllers 40, 173
- Vibrating 42

MOUSE PAD 159
MULTIMEDIA 160
MULTIMETER TEST PROBES 107
MULTIMETERS 113-116
MUSCLE WIRE® 171

N-O

NETWORK PRODUCTS 129-131
NIC® CAPACITORS 20
NUTS 84, 97
OMRON® 71, 73, 76, 77
OPTICAL CLEANER 89
OPTOELECTRONICS 29
OPTOISOLATORS 29
ORDER FORM & INFORMATION 181, 182
OSCILLATORS/CRYSTALS 28
OSCILLOSCOPES 109, 110
OSCILLOSCOPES/PROBES 109

P-R

PALs 7
PANASONIC® DISPLAYS 33
PANAVISE® 85, 105
PANEL METERS 34
PARALLAX® COMPUTERS 169, 170
PATCH CORDS 107, 108
PATCH PANELS 130
PC BOARDS/EXTENDERS 90-92

PC PHOTO ETCH....95
PCB ARTWORK/DEVELOP. ACCESS. 95
PCI CARDS....90, 134-136, 139, 142, 150, 157, 160, 161
PEELs....7
PHOTOCELLS....32
PHOTON MICRO LIGHT®....122
PIN INSERT/EXTRACT TOOLS ..84, 118, 125
PLUGS
Banana....107
DIN, IDC, DIP....81, 85, 125
Power, Line....55
Power, Low Power....66
PHOTO TRANSISTORS....29, 128
PIC MICROCONTROLLERS....9, 93
POMONA®....107, 108
POTENTIOMETERS
Adjustment Tool....118
Bourns®....22
Cermet....22
Clarostat® (53C3)(53C1)(73JA)....22
Kits/Grab Bags....63, 64
Linear Taper....22
Trimmer....23, 63
POWER BASES/STRIPS....151, 152
POWER CONNECTORS/PINS....126
POWER CONVERTERS....52, 53
POWER CORDS/ADAPTERS....38, 56-59
POWER ENTRY & LINE FILTERS....55
POWER INVERTERS....66
POWER JACKS/PLUGS....66
POWER ONE....48, 53
POWER PROTECTION/STRIPS....151, 152
POWER SUPPLIES
AC Variable Transformers....55
Benchtop....112
Computer....133, 147
DC....44-52, 91, 112
Enclosed....48-52, 49
Kits....173
Linear....52
Regulated....52, 58, 59
Switching....44-52
Wall Mount & Table-Top....58, 59
PRESSURE SENSOR....79
PRINCETON TECHNOLOGY....10
PRINTED CIRCUIT BOARD SUPPLIES....92, 93, 95, 175
PRINTER ACCESSORIES
Auto Switchers/Switch Boxes....148, 149
Buffers/Sharers/Networks....148, 149
PROBES....108, 109
PROGRAMMERS....94, 95
PROMs....6
PROTOTYPE ADAPTER....90
PROTOTYPE BOARDS....90-93
PROXIMITY SWITCH SENSORS....79
PUNCH DOWN TOOL....120
QUIKLINK....134
QTRONIX....158, 159
RACKS/RACK MOUNT EQUIP. 130, 150
RACKS, TEST LEADS....107
RADAR KIT....174
RAM....7, 8, 156
RCA, ICs & Transformers....13, 57
RCA, JACKS/CABLES....100, 144
RECTIFIERS....26, 27
RELAYS
Cases/Covers....76, 78
DIP....75
General Purpose....74-76
PCB....74, 76, 77
Power....76, 77
Reed....74
Signal, Low....77
Sockets....75, 76
Solid State....78
RESISTORS
Carbon Film....21
Kits/Grab Bags....63, 65
Lead Forming Tool....124
Network....21
Potentiometers....22, 23
SMD....20
Varistors....23
RESETTABLE FUSES....67
RFI POWER/LINE FILTERS....55
ROBOTICS....170-172
ROTARY SWITCHES....71, 73
RUBBER FEET....96, 98

S

SCR'S (Silicon controlled rectifiers)....26
SCREWS....84, 97
SECURITY....161-164
SECURITY MONITORS....161, 162
SENSORS
Accelerometer....175
Flex....170
Hall Effect....79
Light....33, 177
Liquid....79, 174
Pressure....79
Proximity....79
Ultrasonic....79, 174
SERIAL CARD, IBM® COMPATIBLE..136, 137
SERIAL/PARALLEL CONVERTER....136
SERVOS/CONTROLLERS....40, 172, 173
SHAFT COUPLERS....172
SHARP RELAYS....78
SHORTING BLOCKS....81
SHRINK TUBING....87
SIGNETICS....10
SIMM CONVERTERS....156
SIMMS....156
SOCKETS & ACCESSORIES
Assortment, Kits/Grab Bags....63, 65
DIN....85
DIP....83
Header Plugs....81
Machine Tooled....83
Oscillator....28, 83
PLCC....82
PLCC Prototype Adapter....90
Relay....75, 76
SIMM/SIPP....83
Solder Tail....83
Wire Wrap....83
Wire Wrap ID Labels....83
ZIF....82
SOFTWARE
Data Acquisition....138, 141
Design....93
Diagnostic....137
PIC Programmer....93
Reference....165-167
SOLAR PANELS....101
SOLDER BRAIDS/SPONGES....103, 105
SOLDER POTS....105
SOLDER/DESOLDERING EQUIP. 102-105
SOLDER/FLUX....106
SOLDERLESS BREADBOARDS....90, 91
SOLENOIDS....43
SOUND CARDS....160
SOUND DEVICES/BUZZERS....99-101
SPACERS....63, 64
SPEAKERS....99, 100, 160
STANDOFFS. 63, 65, 97, 98
STATIC CONTROLS....106
STATIC RAM....7
STEPPER MOTOR/CNTRS. 40, 41, 173
STOPWATCHES....117
STORAGE, JARS/CABINETS....20, 98
STRAIN RELIEF BUSHINGS....86
SURFACE MOUNT
Capacitors....18, 20
Cases Storage....98
Diodes....27
ICs....11, 12, 14-16
PLCC Sockets....82
Resistors....20
Switches....71
Test Leads....108
Tools....103, 104, 118
Transistors....24
SURGE PROTECTORS....151, 152
SWITCH BOXES/CABLES..143-146, 148, 149
SWITCHES
AT Computer....68
Binary Code....68
DIP....71
General Purpose....71, 73
Hall Effect....79
Keylock....72
Keypad....72
Kit/Grab Bag....63, 64
Liquid Level....79
Magnetic Reed....72
Micro Type....73
Optical....72
Pressure....79
Proximity Sensing....79
Push Button....68, 70
Rocker....68
Rotary....71, 73
Slide....72
Snap Action....73
Tactile....71
Thumbwheel....68
Toggle....69

T

TAPE....86
TECH SPRAY® CHEMICALS & ACCES. 89
TELEPHONE CONNECTORS & ACCES. 129-131, 134
TELEPHONE ANALYZERS/TESTERS....134
TELEPHONE RINGER GENERATOR....134
TERMINALS
Blocks....80
DIN Rail Blocks....80
Fuseholder....80
Solderless....85, 86
Wire Wrap....92
TEST EQUIPMENT
Benchtop Power Supplies....112
Cable/Interface....132
Current Clamp Meters....116
Fluke®....111, 113, 114
Frequency, Counter/Generator....110, 111
IC Test Clips....14
LAN Testers....132
Leads/Probes....107-109
Light Meter, Digital....117
Line Separators....116
Logic Probe....111
Monitor....137
Multimeter, Analog/Digital....113-116
Oscilloscopes....109-111
Panel Meters....34
Programmers/Testers....94, 95
Tone/Telephone....132
Video....137
Voltage/Metal Detectors....117, 175
TEST LEADS/PROBES/CLIPS....14, 107-109
THERMISTORS, NTC....23
THERMOELECTRIC COOLERS/CHIPS ...155
THERMOMETERS....117
TIE MOUNTS....86, 87
TOKEN RING ADAPTER....135
TOOLS
Anti-Static....106
Calipers....124
Cases....122
Center Punch....118
Chuck Key....119
Crimping/Stripping/Cutting....120, 121
Drills....118
File Sets....124
Glue Gun....124
Heat Gun....87
Hemostat....124
Hex Wrench/Drivers....119
IC....118
Ideal®....120, 121
Inspection....118
Insertion/Extraction....118, 122
Kits/Sets....118, 121-124
Knife Set....124
Lead Forming....124
Micrometer....124
Miscellaneous....118-124
Nibbling....120
Pliers....119, 120
Punch-down....120
Reamer/Deburring....118
Screw/Nut Drivers....119, 124
Soldering....102-106
Vises....85, 105
Wire Wrap....124
Wire/Coax Cutters/Strippers....120, 121
Wrenches....119
TORX KEY SET....119
TPI® TEST EQUIPMENT 108, 109, 110, 116
TRACKBALL....159
TRANSFORMERS
Audio....57
Current....54
International Step Up/Down....57
Isolated....55
Modem Coupling....57
Power/Split Bobbin....54
Table-Top....58, 59
Variable....55
Voice/Data....57
Wall (AC and DC)....60-62
TRANSISTORS....24, 25, 61, 62
TRANSMITTER, CAMERA....163
TRIAC COUPLERS....29
TRIACS....26
TRIMMER CAPACITORS....20
TRIMMER POTENTIOMETERS....23, 63
TRIPPLITE®....151
TWEEZERS....118

U-Z

UARTS....9
ULTRASONIC CLEANER....105
ULTRASONIC SENSORS....79, 174
UPS SYSTEMS....151, 152
USB PRODUCTS 142, 143, 158, 159, 161
UVP® EPROM ERASERS....94
V20....8
VACUUM PENS....104
VARISTORS....23
VELLEMAN® KITS 171, 173-177, 179, 180
VGA/VIDEO CARDS....157, 161
VIDEO ADAPTERS....160
VIDEO CAPTURE/CAMERA....161
VIDEO CONVERTERS....160
VIDEO MODULATORS....160
VIDEO MONITORS....161, 162
VIDEO RAM....8
VISES....85, 105
VOICE CHIPS/MODULES....10, 180
VOLTAGE SUPPRESSORS....27
VOLGEN....47
WALL JACKS/PLATES....129
WALL TRANSFORMERS
AC to AC....60
AC to DC....60-62
Enclosures....95
Power Plugs & Jacks....66
WALL MOUNTS, TV/MONITOR....163
WASHERS....84, 97
WAVETEK®....114, 116
WELLER® SOLDER IRONS/TIPS 102, 104, 105
WIRE/CABLE, BULK (Also Cable Assemblies)
Coaxial Cable....126
Computer Cable....88
Flat Ribbon Cable....88
Flexinol®....171
Hookup Wire, Solid/Stranded....88
Markers....87
Modular Telephone Cable....88
Muscle Wire®....171
Power/Speaker Wire....88
Telephone....88
Ties....86, 87
Tools....86, 87
Twisted Pair/Category 5 (UTP)....88, 129
Wire Management....86, 87
Wire Wrap....88
WIRE JUMPERS....91
WIRELESS PRODUCTS....99, 163, 164
XYTRONIC SOLDERING....102-105
Z80....8
ZENER DIODES....27
ZIP DRIVES AND BATTERIES....153, 159

New and Out-of-Production Electronic Products with Our Low-Price Guarantee

Integrated Circuits



Your one-stop catalog for MPUs, EPROM, memory, linear, digital, signal conversion, and more. You asked for them and we responded. We also have many surface mount devices to choose from!



New bulk pricing on many ICs

For ICs see pages 6-16

Sockets







Jameco carries sockets for every type of application including: solder-tail and machine-tooled low-profile, level 1, 2, 3 wire wrap, crystal oscillator, SIMM & SIPP, ZIF and PLCC surface mount, all at low prices.

See pages 82 & 83 for sockets

Headers









Jameco has expanded our already extensive lines of .100" headers and connectors. We offer straight, right angle, shrouded & keyed, single & double row and friction lock headers. All at prices that can't be beat.

Jameco headers on pages 81 & 82

Soldering Equipment



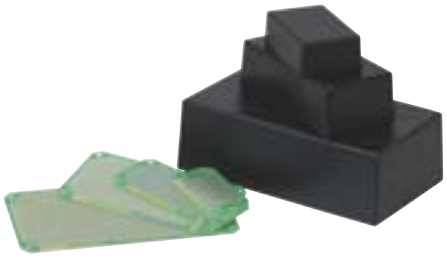


Find the right soldering iron, gun, station, fume extractor or solder. From 23-watt soldering irons, 140-watt soldering guns, to a 2000-watt soldering pot, we've got it all.

Soldering equipment on pages 102-106

Jameco's Speedy Enclosures & Circuit Boards

Enclosures will not crack or split when drilled or punched. PCB mounting slots on all four sides. Prototype builder boards are specifically designed to fit into our ABS speedy boxes. These pre-cut boards have 2 or 4 mounting holes compatible with the PC board mounting hardware.



Part No.	Product No.	Description	1	10	50	100
18905	H2852	ABS speedy enclosure	$5.35	$4.59	$4.09	$3.35
105161	2852PCB	Printed circuit board	14.95	13.45	11.95	10.95

More enclosures and boards on page 96

Stabilize the Operation of Your Electronic Equipment

Need a fan fast? Keep your cool! We probably have it in stock and available for delivery today. We have a wide variety to suit most cooling and ventilation requirements.





Part No.	Description	1	10	50	100
102955	12VDC brushless fan, 42.5 CFM	$7.95	$6.95	$6.25	$5.59
189683	115VAC tube axial fan, 226 CFM	29.95	26.95	23.95	21.49

Flip to pages 36-38 for Jameco's complete selection of fans

Jameco has Over 40 Hard-to-Find Electronic Reference Manuals on a Wide Variety of Applications



NEW

Get the information you need with our new book additions. Our new titles include a pocket reference for standard TTL and CMOS devices and a pocket reference for linear devices. Plus, our new CMOS Sourcebook features a CD-ROM complete with 4000 series datasheets and interface note. Now you can easily take the information with you.

Part No.	Description	1	10
200141	Digital Logic IC Pocket	$29.95	$26.95
199654	CMOS Sourcebook	39.95	37.95

See pages 165-167 for our complete selection!

Just Can't Get Enough Power

Jameco Offers New Low-Cost 100W to 600W Benchtop Power Supplies



NEW

MASTECH

Voltage and current adjustable for maximum versatility. Constant voltage and current operations. Coarse and fine controls for both.

Part No.	Product No.	Watts	Voltage/Current	Size (W"xH"xD")	Wt. (lbs.)	1	10
207618	HY3005C	150	30VDC/5A	5.4 x 6.2 x 11.5	30.1	$159.95	$144.95
207634	HY3010	300	30VDC/10A	14.4 x 6.5 x 10.4	32.0	399.95	359.95

Take a look at page 112 for our complete line

Complete Digital ISO 9000 Soldering/Desoldering

XYTRONIC



125508 162456

Complete digital solution for an ISO 9000 Soldering/Desoldering Station

P/Ns 125508 & 162456 Sold separately $429.90, Combined: $407.95 See P/N 207263

Part No.	Description	Price
207263	Soldering/desoldering station bundle	$407.95

Part No.	Product No.	Description	1	10	25
125508	968	Desoldering station	$309.95	$278.95	$251.95
162456	XY9-60D	Soldering station with ESD	129.95	116.95	104.95

Take a look at page 103 for our complete line

Fast, Low-Cost Device Programmer



EE Tools

NEW

MADE IN USA

New! We just added affordable device programmers to our line, allowing you to program everything from EPROM and GAL to flash memory and microcontrollers. CHIPMAX is 4 times faster than offshore brands.

Part No.	Description	1	5
207731	CHIPMAX	$349.95	$332.95

Other programmers on page 94

Digital Scopes and Multimeters for Every Budget NEW

Fluke 123 20MHz Industrial Scopemeter® with FlukeView Software

The Fluke 123 is the ideal choice for troubleshooting industrial machinery, instrumentation, control, and power systems. The Fluke 123 automatically recognizes signal patterns and sets up correct triggering, timing, and amplitude for stable displays.



FLUKE

Part No.	Model No.	Price
203131	Fluke 123/003SR	$1,195.95
162747	Fluke 123-003 without software	899.95

See page 111 for complete specifications

Our Lowest Priced 4½-Digit Multimeter

- Extra-large digits (0.8" digit height)
- Resolution: 10µV maximum
- **DC voltage ranges:** 200mV – 1000V
- **AC voltage ranges:** 2V - 700V
- **DC/AC current ranges:** 2mA – 10mA
- **Resistance ranges:** 200Ω – 200MΩ
- **Capacitance ranges:** 200pF – 20µF
- Measures transistor h_{FE} & continuity
- Hold button
- Auto power off
- Probes included



MASTECH

Part No.	Product No.	1	10	25
136590	MY65	$69.95	$62.95	$56.95

See page 115 for complete specifications

Analog Pocket Multimeter NEW

- **DC/AC voltage ranges:** 0 – 500V
- **DC current ranges:** 0 – 250mA
- **Resistance ranges:** 0 – 1kΩ
- Size: 2.3"W x 1.2"D x 3.6"H

Includes: Insulated probes

Requires: 1.5V battery (recommended P/N 198707, pg 168)



Part No.	Description	1	10	50
206287	Pocket multimeter	$9.95	$8.95	$7.95

See pages 107-117 for more test equipment

Part Number Color Code
New Sale Refurbished Closeout

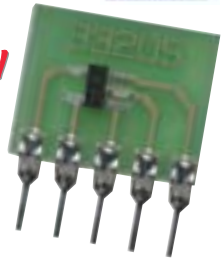
New SMD SURFBOARDS®

Now adapt the latest SMD IC and discrete devices for use with conventional breadboards and sockets.

33000 Series SMD Components

33000 series SURFBOARDS® adapt SMD component footprints to SIP format. Compatible with conventional and solderless breadboards & sockets (.100" center pins).

NEW



207589

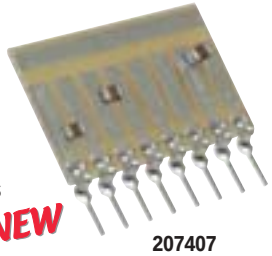
Part No.	Product No.	Pins	1	10
207589	33205	5	$1.55	$1.39
207597	33206	6	1.75	1.54

6000/6100 Series for Discrete Devices

Mini breadboards for surface mount devices.

- Universal large foil pattern areas accept a wide range of device footprints or can be modified to accept new footprints
- 0.1" pin spacing
- Height: 0.5"

NEW

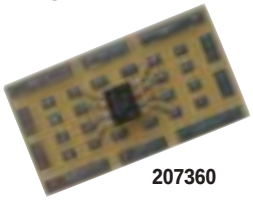


207407

Part No.	Product No.	Pins	Width	1	10
207423	6103	3	0.3"	$1.25	$1.09
207407	6008	8	0.8"	2.15	1.89
207431	6109	9	0.9"	2.25	1.99
207415	6010	10	1.0"	2.65	2.29

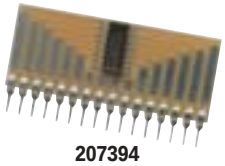
9000 Series for ICs

The 9000 series ® allow you to easily prototype and evaluate circuits and build circuit upgrades. Both 8 and 14/16-pin SOIC devices can quickly be breadboarded in configuration with or without pins.



207360

NEW



207394

- Adapt SMD to thru-hole
- Size: 1.20"W x 0.65"H

207378/207394: 0.1" pin spacing

Part No.	Product No.	1	10
207360	9081 (For 8-pin SOIC)	$1.35	$1.15
207394	9163 (For 14/16-pin SOIC)	5.45	4.79

See page 91 for complete specifications

LCD Messaging Made Easy

TRISYS

LCD MSG II Discrete Message Module

NEW

A simple LCD discrete module that provides the user the ability to display custom messages on a standard LCD module quickly and easily. The module contains its own embedded processor and non-volatile storage for up to 16 user-definable messages, each containing up to 160 characters, plus a 25-character memo message for product I.D. or serialization.





Sample Message

Part No.	Description	1	10	25
199646	MSG II	$49.95	$44.95	$39.95

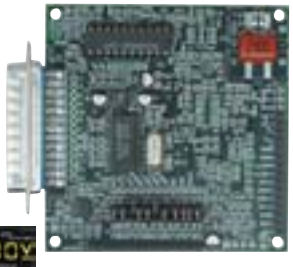
See page 34 for complete specifications

LCD Programming and Parameter Changeable Modules

Stand-Alone DVM Module Board

NEW

Designed for simple programming and parameter changing. With its on-board ALD500 and ALD523 chipset, running on a standard 5VDC power source, you have an economical, high-resolution digital voltmeter. Interfaces with most industry standard 16 x 2 LCD/VFD character display modules via 14-pin direct cable connection. With its on-board 1K EEPROM, you can calibrate and program the unit through a parallel port.





Software



Display

Part No.	Product No.	1	10
208653	MB203A2V	$109.95	$104.95

NEW

Parallel Port Interface DVM Module Board



Single and timer-activated measurement modes turn your PC or laptop into an instant data acquisition system. Using software and documentation provided on diskette, you can change sample parameters, display settings, and store measurement data.

Part No.	Product No.	1	10
208979	MB201A20V	$99.95	$94.95

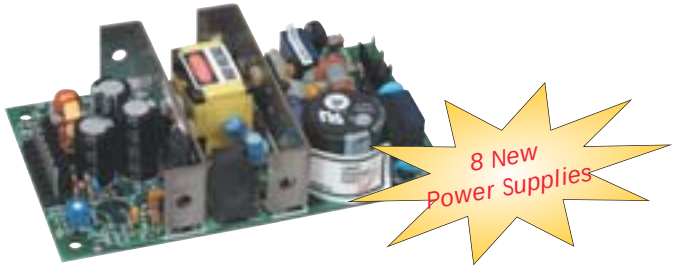
See page 175 for complete specifications

Over 99% of Our Products are in Stock!

Don't worry about backorders.

Jameco's Name-Brand Power Products are Always 99% In Stock and at Lower Prices

Digital Power



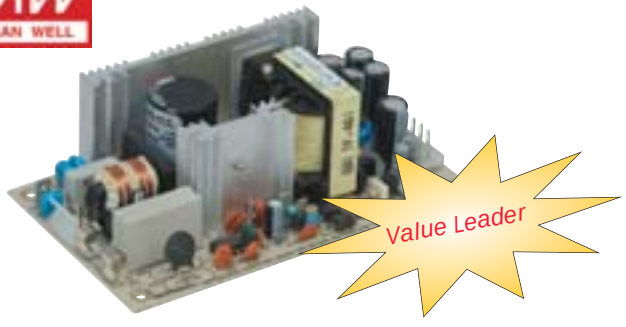
Digital Power's global approvals make it the power supplier of choice for international medical, automotive, telecommunications and the test instrument industries.

POWER-ONE



Power-One is the preferred source for communication infrastructure power requirements. Power One's high-reliability products are also perfect for critical applications such as test equipment and high-end industrial applications.

MW MEAN WELL



Mean Well has been a Jameco partner for 10+ years. They supply low-cost, high-reliability, general-purpose AC/DC open and enclosed-frame switching power supplies and DC to DC converters.

Volgen



Volgen is renowned for providing compact, low-profile, high-quality AC/DC switching power supplies for the automation, industrial control, communication and aerospace industries.

Take a look at pages 44-52 for Jameco's complete selection of the above Power Supplies and the following name brands

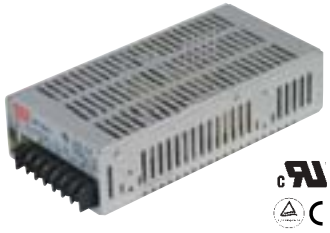
LAMBDA PHIHONG ASTEC DELTA CHEROKEE ARTESYN

150-Watt Mean Well Power Supply

150-Watt Single Output; 5VDC @ 30A

MW MEAN WELL

- Input voltage: 85-264VAC @ 47-63Hz
- 100% full load burn-in test
- PFC: 98% @ 115VAC; 95% @ 230VAC
- Operating temperature: 0-50˚C
- Overload, over voltage and short circuit protection
- No minimum load requirement



Part No.	Product No.	Watts	Output	1	10	25
201911	SP-150-5	150	5VDC @ 30A	$89.95	$80.95	$72.95

Complete specifications on page 50

Half Size Power Supply

ATX 150-Watt Computer Power Supply



Output voltage: +3.3V @ 7A; +5V @ 12A; +12V @ 5A
-5V @ 0.2A; -12V @ 0.3A; 5VSB @ 0.8A

- Input voltage: 115/230 @ 47-63Hz (switchable)
- Buit-in fan
- Input connector: use P/N 38050 power cord, pg 56 (not included)
- Intel and AMD product support lab approved

Part No.	Product No.	Description	1	10	25
202788	SFX2015	150 Watt	$34.95	$26.95	$19.95

Complete specifications on page 147

New and Out-of-Production Electronic Products with 24/7 Service, Expert Support, and Our Low-Price Guarantee

PC Components

- Hard drive and motherboard prices reduced up to 60%
- Hard-to-find specialty products, too




Save up to 60% on Motherboards – See Pages 156-157

Passive Components

- Signal and power connectors, pins, sockets, discrete and more
- 99% in-stock for same business-day shipping
- Save money with lowered prices!




Look Through Our Catalog to Find the Right Products for You

Tools & Test Equipment

- Economically build up your lab
- Full line of scopes, DMM's, cable testers, test leads, crimpers and more
- Brand names you trust: Fluke, Metex, BK Precision and others!





See Pages 107-124 for Jameco's Complete Selection

Power Supplies

A Wide Selection at the Best Prices

- We have the best prices on over 400 power supplies
- We carry all types of power supplies: regulated & unregulated, AC/AC, AC/DC, DC/DC, wall & table-top, open & enclosed frame, switching & linear, DIN rail, benchtop, computer and kits!





A Wide Variety of Power Products on Pages 44-62

Your Choice is Jameco

JAMECO® ELECTRONICS
1355 Shoreway Road
Belmont, CA 94002-4100
1·650·592·8097

Order Desk available 24/7/365

Call 650·592·8097 from 6:30 a.m.–5:00 p.m. PST for:

- ✓*International Sales*
- ✓*Customer Service*
- ✓*Credit Department*
- ✓*Technical Support*

ROUTE TO ☞

- ❑ Engineering
- ❑ Purchasing
- ❑ R&D
- ❑ Instructor
- ❑ Repair
- ❑ Production
- ❑ Plant Maintenance
- ❑ Materials

Name_____

Customer Number

VIP Number

PRESORTED STANDARD
AUTOCR
US POSTAGE PAID
JAMECO ELECTRONICS

Toll Free Ordering,
Customer Service and Technical Support:
1·800·831·4242

Domestic FAX: 1·800·237·6948 / International FAX: 1·650·592·2503
Internet: http://www.Jameco.com e-mail: info@Jameco.com

Receiving duplicates? Incorrect address? No longer wish to receive the Jameco Catalog? Please fax, mail or e-mail your preferences to us.